

Lakes Overlay Zone Wilderness

Six NH-AL lakes, listed in the table below, are designated as Wilderness Lakes.

The Wilderness Lake shorelines are primarily forested, the forest composition varying with the site characteristics and the area's management history. Each lake has an undeveloped shoreline, with no structures, except primitive campsites, within ¼ mile. The lake and its shoreline within ¼ mile, or to the visual horizon if it is further, are passively managed. Public motor vehicle use for lake access and all recreational uses are not allowed. Motor vehicle use for management activities is allowed only to respond to significant health and safety emergencies or to accomplish restoration activities specified in the master plan. Limited primitive campsites may be present.

Wilderness Lakes are defined as Wild Resources Management Areas in NR 44.06(10). Wilderness lakes also have Type 1 Recreational Use Setting classification. That is defined in NR 44.07(4).

Wilderness Lakes Overlay Zone SUMMARY

- ▲ Six Wilderness Lakes
- ▲ Opportunity to maintain the lakes in an undeveloped condition and without significant signs of human influence for recreational, ecological, and habitat values.
- ▲ Conservation of wetland habitats for rare species.
- ▲ Within ¼ mile, passive forest management and no motor use.

Table 2.19 List of Designated Wilderness Lakes

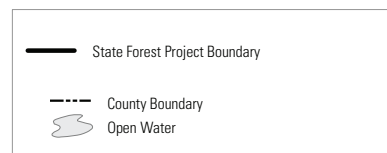
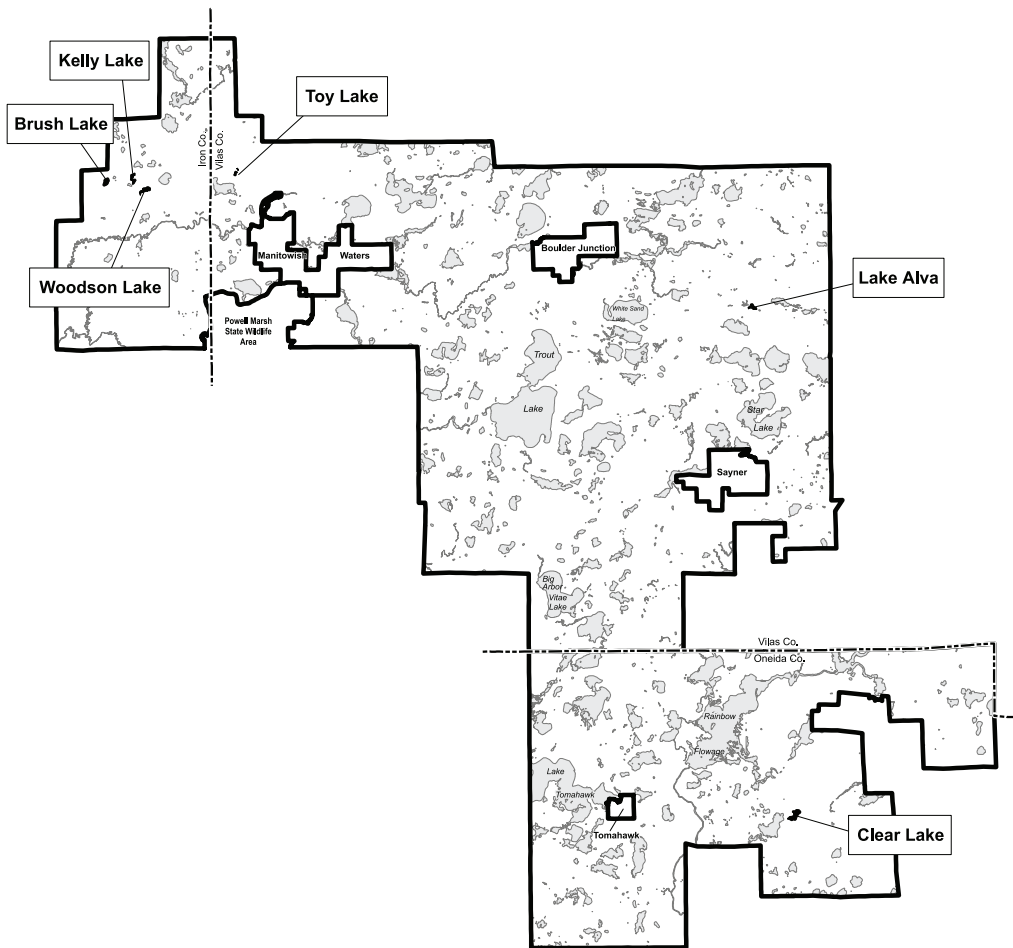
Lake Name	County	Acres (water)
Brush Lake	Iron	33
Clear Lake	Oneida	62
Kelly Lake	Iron	32
Lake Alva	Vilas	23
Toy Lake	Vilas	70
Woodson Lake	Iron	27

LONG AND SHORT-TERM OBJECTIVES (100 AND 50 YEAR)

- Maintain the lakes in an undeveloped condition and without significant signs of human influence for recreational, ecological, and habitat values.
- Provide for remote, quiet, non-motorized, low-impact recreation in a wild setting with limited, non-motorized access. Provide primitive canoe camping opportunities as appropriate.

MANAGEMENT PRESCRIPTIONS

- Permit natural processes to predominate: Passively manage the entire management area (a ¼ mile buffer around the lake), except to remove invasive species, for forest restoration (i.e. thin pine plantations to restore them to a more natural appearing condition), to restore roads to a natural condition, or maintain designated trails and primitive canoe campsites. Salvage activities following a natural disturbance is not allowed. Planting native species of trees is allowed for restoration or scenic enhancement purposes.
- Restrict all motor vehicle access within ¼ mile of the lake into the area, except to respond to health and safety or other emergencies, or to conduct authorized restoration activities.
- Actively suppress forest fires when they threaten areas outside of the management area using the minimum actions required. Restore any soil disturbed to its original topography.
- Maintain limited primitive to lightly developed trails for water access or hiking.
- On lakes where camping is appropriate, construct and maintain primitive campsites at locations that are out of sight and sound of other campsites to provide a high level of solitude. Place no picnic tables at these sites.
- Monitor insect and disease outbreaks when they occur and take action only when there is a strong threat to forests outside of the management area.

Map 53. Wilderness Lakes Management Zone

Northern Highland - American Legion
State Forest
Master Plan

0 3 6 9 Miles
Scale 1:400,000

The data shown on this map have been obtained from various sources, and are of varying age, reliability and resolution. This map is not an authoritative source of information about legal land ownership or public access.

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Thirty-four lakes, listed in the table below, are designated as Wild Lakes.

On Wild Lakes human influence on the lake or its surrounding lands is not conspicuous. The shore-lands are primarily forested, the composition varying with the site characteristics and the area's management history. The lakes and their shore-lines, within 400 feet, are natural appearing without signs of management. The lakes are essentially undeveloped, other than possibly primitive campsites and an access road, and no structural developments are visible from the water.

While limited motor vehicle access to the lake shore may be present; all other motorized recreational vehicle use within the 400 foot Wild Lake Zone is prohibited. Motor vehicles may be used for management activities in response to significant health and safety emergencies or for restoration activities specified in the master plan.

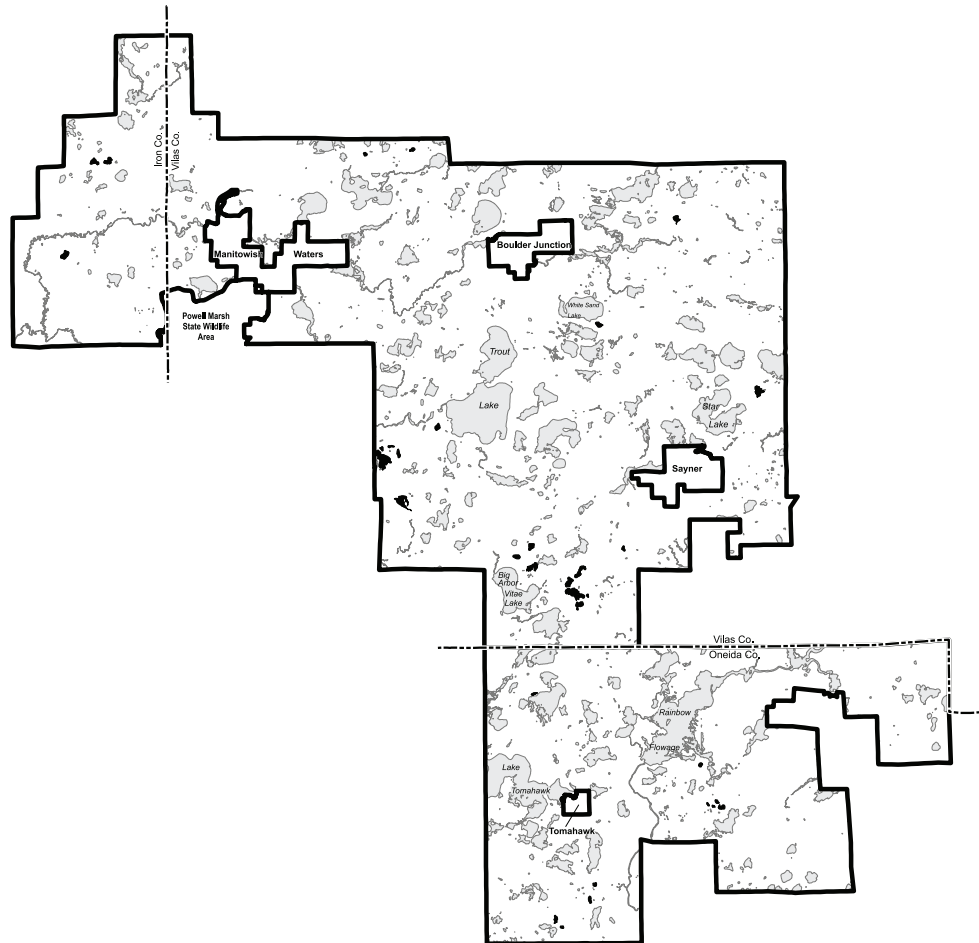
Wild Lakes are defined as Wild Resources Management Areas in NR 44.06(10). Wild lakes also have Type 2 Recreational Use Setting classification. That is defined in NR 44.07(5).

Wild Lakes Overlay Zone SUMMARY

- ▲ Thirty-four Lakes
- ▲ Maintain the lakes in an undeveloped condition without conspicuous signs of human influence for quiet, low-impact recreation, and ecological and habitat values.
- ▲ Conservation of wetland habitats for rare species.
- ▲ Passive management within 400 feet of the lake, and only non-motorized use of the lake.

Table 2.20 - List of Designated Wild Lakes

Lake Name	County	Acres (water)
Benedict Lake	Vilas	26
Bittersweet Lake	Vilas	103
Bug Lake	Vilas	19
Devine Lake	Vilas	95
Dry Lake	Vilas	44
Du Page lake	Iron	32
East Ellerson Lake	Vilas	136
Frog Lake	Iron	42
Hawk Lake	Oneida	10
Helen Lake	Oneida	12
Impot Lake	Oneida	14
Island Lake	Oneida	17
Johnson Lake	Vilas	24
Little Cloud Lake	Vilas	10
Max Lake	Vilas	24
Mud Lake	Iron	56
Norway Pine Lake	Iron	30
Oberlin Lake	Vilas	42
Prong Lake	Vilas	31
Salsich Lake	Vilas	48
Smith Lake	Vilas	41
Swanson Lake	Oneida	21
Unnamed lake east of Lumen lake	Oneida	7
Unnamed lake east of Bittersweet Lake	Vilas	5
Unnamed lake south of Rainbow Flowage	Oneida	13
Unnamed lake north of Big Lake	Vilas	10
Unnamed lake west of Round Lake	Vilas	15
Unnamed lake southeast of White Sand Lake	Vilas	20
3 small unnamed lakes around East Ellerson Lake	Vilas	19, 10, 8
3 small unnamed lakes west of Swanson Lake	Oneida	9, 5, 4

Map 54. Wild Lakes Management Zone

- State Forest Project Boundary
- - - County Boundary
- Open Water

Locator Map



NHAL096-20

Northern Highland - American Legion
State Forest
Master Plan

0 3 6 9
Miles
Scale 1:400,000

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LONG AND SHORT-TERM OBJECTIVES (100 AND 50 YEARS)

- Maintain the lakes in an undeveloped condition without conspicuous signs of human influence for recreational, and ecological, and habitat values.
- Provide a primarily non-motorized recreational setting for low-impact activities such as boating, canoeing, or fishing; and, where appropriate, primitive camping.

MANAGEMENT PRESCRIPTIONS

- Permit natural processes to predominate: Passively manage the entire management area (a 400 foot wide buffer around the lake shore). Exceptions are allowed are for the removal of invasive species, for forest restoration (i.e. thin pine plantations to restore them to a more natural appearing condition), limited tree-drops for fish habitat restoration, to restore roads to a natural condition, or maintain designated trails and primitive canoe campsites. Salvage activities following a natural disturbance is not allowed. Planting native species of trees is allowed for restoration or scenic enhancement purposes.
- Limited shoreline tree-drops may be used where needed to add coarse woody debris for restoration and enhancement of aquatic habitat. This shall be done in a manner that maintains a general natural appearance along the shoreline, as required for a Wild Resources Management Area and Type 2 Recreational Use Setting (NR 44.06(10)). Motorized watercraft or other motorized equipment may be used for this fishery habitat restoration and for associated monitoring of the fishery populations.
- On lakes where camping is appropriate, construct and maintain primitive campsites.
- Provide limited public water access ranging from carry in trails to simple road access as authorized in the lake access plan in this master plan. Locate vehicle parking in areas not visible from the lake.
- Except for a lake access road, restrict all motor vehicle use within 400 feet of the lake.
- (Motorized vehicles or watercraft are not allowed for routine management activities. They may be used only when responding to health and safety or other emergencies, or to conduct restoration activities authorized by this plan.)
- Primitive to lightly developed trails for non-motorized uses may be located within the Wild Lake Zone
- Actively suppress forest fires that threaten areas outside of the management area using the minimum actions required. Restore any soil disturbed to its original topography.
- Monitor insect and disease outbreaks when they occur and take action only when there is a strong threat to forests outside of the management area.



Due to a statewide policy change that tightened the criteria for allowable uses on designated wilderness and wild lakes, several NH-AL lakes that were designated under the 1982 plan no longer qualify for designation without changing their long established pattern of use. Therefore, under the revised forest plan they will be assigned a classification fits their current conditions; thus, allowing all of the present uses and protection to continue.

Sixteen of these lakes fall within Native Community Management Areas that will have no or limited forest management which will protect the natural scenic values of the lake shore.

To continue the high level of shoreline protection, the shoreline of the remaining 29 lakes will be classified as a scenic lake zones. A 400 foot scenic management zone, similar to the wild lake management zone, will surround each lake. Many of these lakes also have motorized watercraft use restrictions, which are listed in the Recreation Management Section of this plan.

LONG AND SHORT-TERM OBJECTIVES (100 AND 50 YEARS)

- Maintain and enhance the natural appearing and generally undeveloped landscape of each lake.
- Maintain the existing level and type of public access and use of the lake and adjacent shoreline.

RESOURCE MANAGEMENT PRESCRIPTIONS

- Manage the forest within the scenic management zone (that area within 400 feet of the lake shore) to favor a mixed composition of species with emphasis on larger, longer-lived trees. Maintain an abundant amount of snags and coarse woody debris. Retain all white cedar. Underplant with red or white pine if necessary to speed the conversion to longer-lived species.
- Locate and design development to be harmonious with the landscape and with Type 3 Recreational Use Setting standards (NR 44.07(6)).
- Maintain or improved the road access and boat landings to minimize visual effects from the water. Maintain existing primitive canoe campsites. The development of new primitive campsites is authorized.
- All types of trails, motorized and non-motorized, are allowed within the Scenic Lake Management Zone.
- Generally, leave natural disturbances to naturally regenerate. Consider salvage when the visual qualities along the lake shore can be enhanced and erosion potential can be mitigated. Plant following salvage if the desired natural regeneration would not occur.

Scenic Lakes Overlay Zone SUMMARY

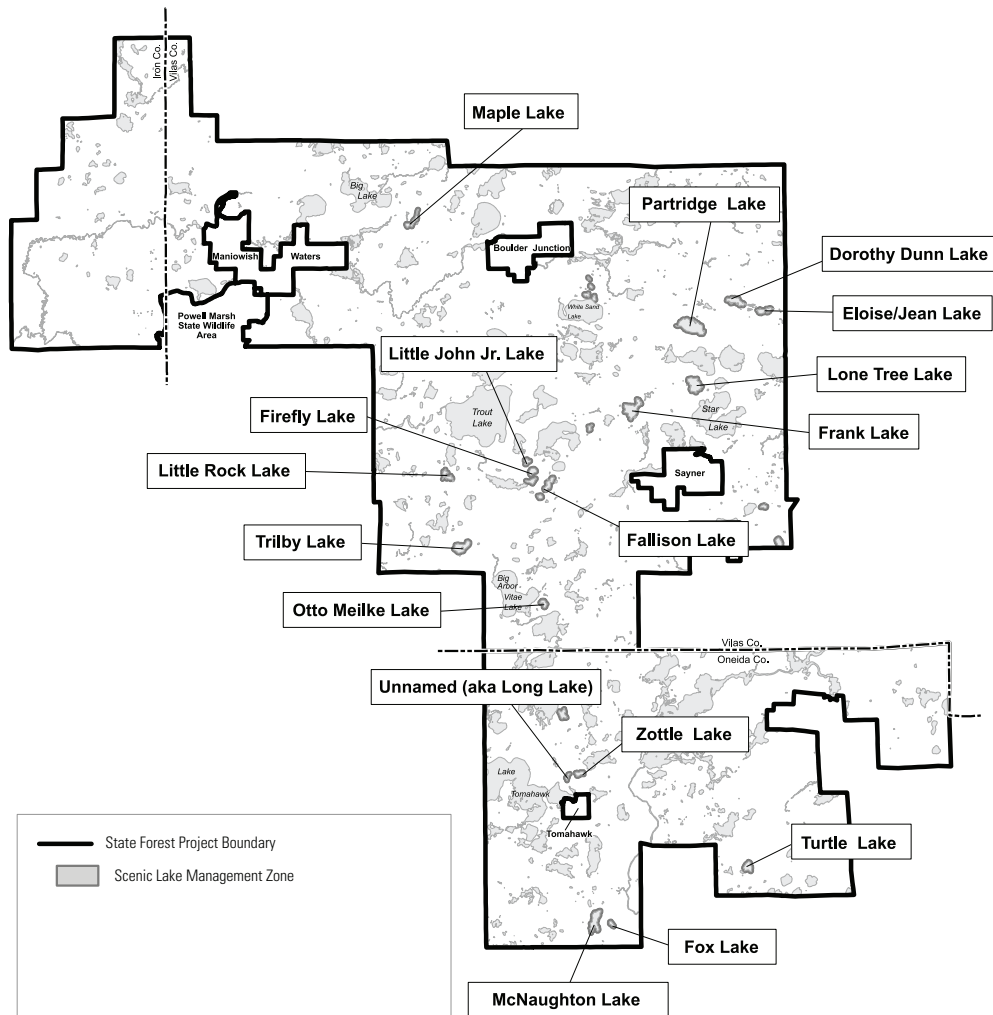
- ▲ 29 lakes
- ▲ This area is approximately 2,587 land acres with 1,296 acres in state ownership.
- ▲ To protect, maintain and enhance for long-term public enjoyment lands or waters having unique aesthetic qualities or outstanding scenic beauty and lands for managing for aesthetics is a primary concern due to significant or special public use of the area.

Figure 2.21 - List of Scenic Lakes

Lake Name

Blueberry Lake	Little Rock Lake
Deadman Lake	Lone Tree Lake
Dorothy Dunn Lake	Maple Lake
Eloise Lake	McNaughton Lake
Emerald Lake	Otto Meilke Lake
Fallison Lake	Partridge Lake
Firefly Lake	Shannon Lake
Frank Lake	Trilby Lake
Fox Lake	Turtle Lake
Hemlock Lake	Wildwood Lake
Jean Lake	Zottle Lake
Little Bass Lake	4 Un-named lakes north of
Little John Jr. Lake	White Sand lake
	Un-named (aka Long Lake)

- When harvesting timber or performing other management activities within this zone, modify the standard prescriptions to minimize to the degree practicable the visibility of management activities as viewed from the water and access roads. Clearcutting is not authorized, except as necessary for salvage operations.
- The use of motorized vehicles, watercraft, or other equipment for management activities is not limited.
- Other management activities that may be done when needed include; herbicide application, burning, installation of fish habitat improvement devices- including tree-drops along the shoreline, trail or road construction, erosion control, and removal of hazard trees in public use areas.

Map 55. Scenic Lakes Management Zone

Northern Highland - American Legion
State Forest
Master Plan

NHAL096-12-0

0 3 6 9 Miles
Scale 1:400,000

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NON-DESIGNATED LAKES AND STREAMS

Lakes and streams are likely the NH-AL's number one recreational attraction. Most are highly scenic with generally undeveloped or are lightly developed highly shorelines. All shorelines are designated Class A Scenic Management Zones. Therefore, all management activities along the shorelines will follow guidelines of the Silviculture and Forest Aesthetics Handbook (WDNR 1995).

MANAGEMENT OBJECTIVE

Aesthetic management considerations predominate along all lake and stream shorelines. Develop and maintain the environment on the state-managed shorelands to the greatest scenic potential for public enjoyment.

RESOURCE MANAGEMENT PRESCRIPTIONS

- Manage the forest along shorelines to favor a mixed composition of species with emphasis on longer-lived trees. Consider salvage when the visual qualities along the lake shore can be enhanced and erosion potential can be mitigated. Plant following salvage if the desired natural regeneration would not occur.
- When harvesting timber or performing other management activities near shorelines modify the standard prescriptions to minimize to the degree practicable the visibility of management activities. Clearcutting is not authorized, except as necessary for salvage operations.

Other management activities that may be done when needed include: the development and maintenance of authorized facilities, herbicide application, burning, installation of fish habitat improvement devices- including tree-drops along the shoreline, trail and road construction, erosion control, hazard trees removal in public use areas, and the removal of trees to maintain or create scenic vistas.



Wildlife Management**WILDLIFE MANAGEMENT**

The NH-AL State Forest supports a great diversity of wildlife species, including all game, furbearer, and bird species common to Northern Wisconsin and Wisconsin's highest population of breeding bald eagles, osprey, common loons, and river otter. The wildlife species list includes approximately 150 types of birds, 50 mammals, 18 amphibians and 13 reptiles. The NH-AL's diverse mixed conifer and hardwood forests also has one of North America's richest diversity of breeding songbirds. Birds associated with Canada's boreal forest, such as the evening grosbeak, pine siskin, gray jay, and palm warbler, are well represented. A wide variety of birds migrate through the NH-AL as well. The numerous lakes, the Rainbow Flowage, the Wisconsin River, and the adjacent Powell Marsh Wildlife Area provide important migratory bird habitat.

Endangered and threatened species (listed species) on the NH-AL include the following terrestrial vertebrates: timber wolf, osprey, bald eagle, trumpeter swan, wood turtle, yellow rail, and spruce grouse. The NH-AL contains 67 special concern animals including various mammals, reptiles, amphibians, insects, fish, and mussels. Terrestrial vertebrates of special concern include the northern goshawk, merlin, four-toed salamander, bullfrog, northern myotis bat, black tern, common merganser, Connecticut warbler, and boreal chickadee.

WILDLIFE HABITAT MANAGEMENT

The wildlife management program on the NH-AL focuses on maintaining and enhancing habitat and assessing the population status of the important game, non-game, and listed species. The abundant wildlife on the NH-AL requires diverse forest habitats in all the various successional stages from very young through old growth. Diverse and healthy wildlife populations will be maintained by managing the composition and structure of forest habitats integrated with the management objectives and activities outlined for each land management area in the Land Management Section of this plan. Wildlife habitat values are further assured by the wildlife biologists working with foresters on timber sales in order to maximize tree species diversity and improve vegetative structure, consistent with the management objectives for the area.

This wildlife management plan has been integrated into the management prescriptions for the individual management areas.

Forested Habitats

- Approximately 25 to 30 percent of the NH-AL will be managed in forests dominated by aspen and white

birch through clearcut and shelterwood harvests. There will be a diversity of different age classes by harvesting some aspen stands before economic rotation and some aspen stands beyond economic rotation. While aspen-birch forests are dominated by aspen, they also contain a mixture of various pines, oaks, maples, and white birch.

- Approximately 7 percent of the NH-AL will be managed in forests dominated by red oak. Red oak stands will be grown to biological maturity (age 90 to 150 years) and regenerated through the shelterwood system. In all types of forest stands, when red oak is present, full-crowned red oak will be maintained as a canopy tree at the rate of 5 to 10 trees per acre across all sites and stands, depending on the site conditions and the management objective of the area.
- Approximately 1.5% of the NH-AL will be managed in hemlock-yellow birch forests. Most hemlock-dominated stands will be reserved from harvest during this planning period. Some hemlock stands will receive treatment to encourage hemlock regeneration. Individual trees and groves of eastern hemlock and yellow birch will be maintained during forest management activities. Most white cedar forests will be reserved from active management.
- The white pine community will slowly increase throughout the NH-AL. Individual trees will be grown to biological maturity. Stands of white and red pine will be thinned from below and grown to biological maturity. Active forest management will allow the slow expansion of white pine throughout the NH-AL. Disease problems may require all large red pine to be removed from new plantation areas.
- Approximately 3 to 4% of the NH-AL will be maintained in jack pine and scrub oak forests. Jack pine forests will be managed through a combination of natural regeneration and plantations. Scrub oak forests will be managed with clearcut harvests with scattered reserve oaks and pines.
- Approximately 1% of the NH-AL will be maintained in grassy openings. Forest openings and bracken grassland communities occur in areas of the NH-AL managed for aspen, white birch, oak, and jack pine. Most openings are about one acre in size but some, such as the Johnson Lake bracken grassland, are larger. There are currently about 500 relict openings such as frost pockets and old home sites as well as 300 constructed openings. Maintain the openings by mechanical mowing, hand cutting, and prescribed fire. No herbicides will be used and no new openings will be constructed.
- Long-lived trees such as red oak, white pine, and red pine will be maintained in clearcuts as long as their biological maturity allows. Trees will be harvested if they will not survive until the next stand entry. Small

Wildlife Management

clumps of aspen-birch may be reserved in clearcuts for ruffed grouse budding and cavity trees. A ring of aspen trees may be reserved around grassy openings. Aspen and white birch trees may be reserved along wetland edges to act as ruffed grouse budding trees and as cavity trees.

- Vegetative height diversity will be developed in areas managed by selective harvests. Most northern hardwood stands will be managed to promote an all-aged structure including shrubs, saplings, mid-canopy trees, canopy trees, and super canopy trees.
- Large, full-crowned trees with dens and cavities as well as dead trees (snags) will be maintained on appropriate sites in all management areas. These trees will be maintained unless they are unsafe, cause aesthetic concerns, or increase insect pests. Forest stands subject to large-scale death from disease, insects, or fire will be salvaged.
- Selected areas and stands will be managed for old growth forest characteristics through active and passive management. Old growth management examples include various hemlock-yellow birch, northern hardwood, and red oak-pine forests. Old growth characteristics that provide important wildlife habitat include abundant coarse woody debris; large, old trees; abundant large snags, cavity trees, and den trees; tall, supercanopy trees; and various sized canopy gaps with dense young trees.

Non-forested Wetlands

All non-forested wetlands, including various poor fens, northern sedge meadows, shrub-carr, boreal rich fen, and open bogs will be protected. These wetlands provide habitat for a wide variety of wetland wildlife including species of special concern. Protective management prescriptions for non-forested wetlands are outlined in the Land Management Section of this plan.

Ruffed Grouse Management Areas

Two special ruffed grouse demonstration areas will be managed through timber harvests to demonstrate the value of aspen and forest management in ruffed grouse conservation. The Sherman Lake and Stone Lake Areas will be managed using normal forest management practices but with various sizes of scattered timber harvests. The Stone Lake Area will continue to have the ruffed grouse population monitored each

spring through intensive drumming surveys. Please refer to Area 7 in the Land Management section of this chapter.

Wildlife Flowages

Five small flowages on the NH-AL, Mann Creek, Stevenson Creek, Ristow, Little Bear Creek, and Brandt Lake, are managed for wildlife habitat. They will continue to be maintained and managed for that purpose. No new flowage construction is planned.

Aquatic Habitats

- Wild rice beds occur in 19 streams, flowages, and lakes on the NH-AL. Wild rice is significant in Native American culture and is an important wildlife habitat. Wild rice beds will receive an annual inventory and be managed for wild rice production.
- Undeveloped lake and stream shoreline is important wildlife habitat. All undeveloped lake and stream shoreline will be managed to protect water quality, maintain wildlife and fisheries habitat, and enhance aesthetics. Shoreline management will include vegetative zones. They will be maintained by following Best Management Practices for Water Quality when performing all forest management activities.
- Ephemeral ponds and permanent small ponds provide important breeding sites for amphibians and waterfowl. These sites will be protected through vegetative management adapted to minimize impacts and by following Best Management Practices for Water Quality.

Endangered, Threatened, and Species of Special Concern

- Individuals of all endangered, threatened, and special concern wildlife species will be protected.
- All known critical breeding habitat for these species will be protected or maintained through management. Examples of critical habitat includes sites used for breeding and foraging such as bald eagle, osprey, and great blue heron nest sites, wood turtle nest sites, wolf den and rendezvous sites, northern goshawk nest territories, and trumpeter swan and common loon nest sites. The Natural Heritage Inventory (NHI) will be checked prior to all timber sales, ground breaking projects, recreational and trail development.

Integrated Management

Most of the forest habitat work on the NH-AL occurs through the timber sale program. Activities associated with timber

Wildlife Management

sales directly impact wildlife habitat. Wildlife biologists review all timber sales and provide recommendations to maintain and improve wildlife habitat.

WILDLIFE POPULATION MONITORING

Populations of important game species will be monitored through annual surveys at the local or region level. Species surveyed include white-tailed deer, black bear, ruffed grouse, woodcock, river otter, and mammalian predators. Beaver are surveyed once every three years. Waterfowl are surveyed through the annual statewide waterfowl breeding survey.

Populations of important endangered, threatened, and species of special concern will be monitored through annual surveys. Species surveyed include bald eagle, osprey, trumpeter swan, Great blue heron, northern goshawk, and timber wolf. Common loons are surveyed every five years through Northland College's Sigurd Olson Institute. Two frog and toad survey routes are located in the NH-AL.



Rare and uncommon wildlife such as badger, moose, spruce grouse, Great gray owl, black tern, and merlins are monitored through reports from staff and citizens. The reports are organized in the Bureau of Endangered Resources' Natural Heritage Inventory.

WILDLIFE POPULATION MANAGEMENT

Game species are managed through hunting and trapping seasons. Each game species has a population goal set for a certain local or regional area. Hunting and trapping regulations and population goals are not set through the Master Planning process. Game populations are managed through regulations and goals set by the Natural Resources Board and the Voigt Intertribal Task Force. The public is involved in all stages of this review and implementation process.

WILDLIFE RESEARCH

DNR, tribal and university-sponsored wildlife research occurs on the NH-AL. Current research projects include work on common loons, bald eagles, osprey, ruffed grouse, northern goshawks, old growth, and golden-winged warblers. New research projects may be undertaken if they do not conflict with this master plan.

FINANCIAL AND WORKFORCE CONSTRAINTS

All of the above activities will ultimately be limited by financial and workforce constraints. Currently, a wildlife biologist or an endangered resource specialist are not assigned to the

Fisheries Management



FISHERIES MANAGEMENT

The uniquely abundant water resources in the NH-AL State Forest provide for a wide range of fish communities. This resource attracts a diverse group of anglers that play a major role in how these waters are managed. Native American treaty harvest rights also play a role. Management goals and activities for these waters vary by the type of water and angling potential. The waters in the forest can be divided into four major types: Cool Water Lakes, Warm Water Lakes, Cool Water Streams, Cold Water Streams. The management for each type is described individually below.

COOL WATER LAKES

Cool water lakes comprise the major water resource within the forest. These lakes are typically infertile, greater than 200 acres, have clear or slightly stained water and have a maximum depth of more than 30 feet. The typical gamefish are walleye, muskellunge, northern pike, smallmouth bass, yellow perch and black crappie. Other species of interest include cisco, redhorse, and white sucker. The unique lake trout and whitefish fishery of Trout Lake also falls into this group. Other examples of NH-AL lakes in this classification are: Papoose Lake (Vilas Co.), White Sand Lake (Vilas Co.), Plum Lake (Vilas Co.), and Lake Tomahawk (Oneida Co.).

Management Objectives

- Provide a quality harvest as well as trophy opportunities.
- Rehabilitate historic lake trout populations to provide increased future lake trout fishing opportunities.
- Stock muskellunge and walleye on waters suited to these species but have recruitment problems. (The vast majority of the cool water lakes have adequate natural reproduction of the major game species.)
- Maintain brook and/or brown trout fishing opportunities on several small cool water lakes.
- Regularly assess the health of these waters and their fishery

Management Activities

- Continue to conduct creel, electrofishing, and netting surveys to statewide monitoring guidelines. Make the results available to the public.
- Set fishing regulations to provide a quality harvest as well as trophy opportunities. Evaluate the regulations to ensure the desired response is occurring in the fishery.
- Stock the Trout Lake strain of lake trout into suitable lakes on the forest.
- Stock muskellunge and walleye on suitable waters that have recruitment problems.
- Stock selected small cool water lakes for a put, grow and take brook and/or brown trout fishery.

WARM WATER LAKES

There are numerous warm water lakes in the forest. These lakes are typically moderately fertile, less than 200 acres, and have a maximum depth of less than 30 feet. The fishery in most of these waters consists of bass and panfish, but some waters also have significant northern pike populations. These waters have simple fish communities compared to larger lakes in the area. They have fewer habitat types, thus fewer fish species. Most of these fisheries can not sustain high levels of harvest due to their small size and limited fertility. Lakes that fit this classification include: North Bass Lake (Iron Co.), Stella Lake (Vilas Co.), Partridge Lake (Vilas Co.), Bittersweet Lake (Vilas Co.), and Miller Lake (Oneida Co.).

Management Objectives

- Provide a quality harvest as well as trophy opportunities.
- Provide more catch and release fishing opportunities.
- As few of these waters have naturally reproducing walleye or muskellunge, use stocking to provide panfish control and additional angling opportunities.
- Regularly assess the health of these waters and their fishery

Management Activities

- Continue to conduct creel, electrofishing, and netting surveys to statewide monitoring guidelines. Make the results available to the public.
- Set fishing regulations to provide a quality harvest as well as trophy opportunities. Evaluate the regulations to ensure the desired response is occurring in the fishery.
- Stock muskellunge and walleye where needed to provide panfish control and angling opportunities.
- Evaluate and recommend some of the smaller warm water lakes for catch and release fishing regulation.

COLD WATER STREAMS

Of all the waters in the forest the cold water streams are the most limited. These waters have summer water temperatures that do not get above 70 degrees and have moderate flows. The fisheries present in most of these waters consist of brook and/or brown trout. The major waters in the forest that fit this designation are: Plum Creek (Vilas Co.), Stevenson Creek (Vilas Co.), and Mishonagon Creek (Vilas Co.).

Management Objectives

- Maintain and enhance a self-sustaining trout fishery. Improve the food supply, provide cover, and improve spawning substrates.
- Provide a quality harvest as well as trophy opportunities.
- Regularly assess the health of these waters and their fishery.

Management Activities

- Continue to conduct creel, electrofishing, and netting surveys to statewide monitoring guidelines. Make the results available to the public.

Fisheries Management

- The waters in this group have adequate natural reproduction of the major game species and are not stocked. Plum creek is currently the only exception, continue stocking brown trout.
- Maintain existing trout habitat structures, and perform new traditional in-stream trout habitat improvements as staff and money allow.
- Set fishing regulations to provide a quality harvest as well as trophy opportunities. Evaluate the regulations to ensure the desired response is occurring in the fishery.
- Control beaver control as necessary (limit dams that slow water flow and increase water temperatures).

COOL WATER STREAMS

There are cool water streams scattered throughout the forest. Most of these waters have their origin at the outlets of lakes and many connect two lakes. Due to a lack of significant ground water input these waters have summer water temperatures that regularly get above 70 degrees. These waters have moderate to low flows and are usually fertile. The fisheries present in most of these waters are typically the same as the lakes they are connected to. Due to their high summer water temperatures they do not have trout. Little, if any, habitat work is conducted on these waters, and none are currently stocked. These streams have adequate natural in-stream reproduction or are adequately stocked by fish from the lakes they are connected to. The basic statewide fishing regulations currently apply on all these streams, and there currently are no plans to modify them. Representative waters in the forest that fit this classification are: Manitowish River (Vilas and Iron Co.), Trout River (Vilas Co.), and the Wisconsin River (Vilas and Oneida Co.).

Management Objectives

- Regularly assess the health of these waters and their fishery.
- Rehabilitate the sturgeon fishery of the Manitowish River system.

Management Activities

- Continue to conduct creel, electrofishing, and netting surveys to statewide monitoring guidelines. Make the results available to the public.
- Maintain the existing spring fish refuges.
- As may be necessary to rehabilitate the Manitowish River system's sturgeon fishery:
- Use stocking and spawning habitat improvement
- Recommend modifications to the seasonal discharges of water at the Rest Lake dam.
- Recommend closure of the Manitowish River to sturgeon fishing.

GENERAL HABITAT MAINTENANCE AND IMPROVEMENT

Losses of habitat and shoreline/bank development are common issues on all these waters. Management activities that enhance habitat (such as tree drops, half logs and bank structures) may be applied on waters, consistent with the site's land use classification, where they would provide a meaningful return to the fishery. Additionally, riparian shoreline and stream bank activities have a tremendous effect on the health of our fisheries. Buffer strips and shoreline restoration on all waters in the forest will be promoted.

MANAGEMENT PRIORITIES

All of the above activities will ultimately be limited by financial and workforce constraints. Attempts will be made to maximize efforts to manage these fisheries for the health of the resource first and secondly for public opportunity.

FISHING REGULATIONS

Controlling fish harvest through the use of lake and stream specific fishing regulations is the most effective tool in managing the fisheries on our waters. A variety of fishing regulations cover the waters in the NH-AL state forest. The types of fishing regulations that are currently in use include closed seasons, bag limits, and length restrictions. These regulations are not set through the master planning process, but through an annual rule making process that involves the local fisheries biologist or warden, conservation congress, DNR secretary, natural resources board, legislature, and the governor. The public is involved at all the stages in this process.

RESEARCH ACTIVITIES

The large numbers of waters in this area provide unique fisheries research opportunities. State and university sponsored studies that have meaningful management applications should be encouraged. These types of studies can provide insight into fisheries issues that will benefit waters well beyond the boundaries of the state forest.

All the waters in the forest boundary have management research value. Issues that are of significant management concern are always changing and any of these waters may meet the requirements of important future studies. Research activities will be carried out in locations and using methods that are consistent with the management classifications and management objectives in this property plan. Waters that currently have major ongoing fisheries studies include: Escanaba Lake (Vilas Co.), Pallette Lake (Vilas Co.), Nebish Lake (Vilas Co.), Mystery Lake (Vilas Co.), Spruce Lake (Vilas Co.), Little Rock Lake (Vilas Co.), Camp Lake (Vilas Co.), Bittersweet Lake (Vilas Co.), Smith Lake (Vilas Co.), Oberlin Lake (Vilas Co.), Prong Lake (Vilas Co.), Lake Trout Lake (Vilas Co.), and Sparkling Lake (Vilas Co.).

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RECREATION MANAGEMENT

Recreation on the NH-AL is important to many people, and it provides an important supporting role in the regional tourism economy. Visitors have been coming to the NH-AL for generations, and those who vacation or live near the forest know the beauty of its lakes and streams, diversity of trails and campgrounds, and extent of its forests.

Annual visitation to the NH-AL is now over two million visits per year. According to staff estimates, most recreational activities on the NH-AL have increased steadily since the mid-1990's. Hiking and canoeing have seen dramatic increases. Boulder Junction's paved bike trail has become immensely popular. Camping has increased fairly steadily. The most popular campgrounds on the forest, especially those offering more modern amenities like showers and flush toilets, can not meet the demand throughout most of the camping season. At the other end of the scale, primitive camping at remote canoe or hike-in sites, which is a rather unique offering at the NH-AL, is also seeing high demand. Hunting, fishing, and boating are experiencing slow but steady increases. Participation in winter sports, have fluctuated with snow conditions, but use levels remain steady when conditions are good. Interpretation and educational programs are highly popular and demand is rising. While the NH-AL currently does not have ATV riding opportunities, there has been a dramatic increase in ATV ownership and demand for riding opportunities statewide and in the NH-AL area.

This plan maintains nearly all of the existing recreational facilities and opportunities, it also provides for a number of facility expansions or new additions to help meet growing demands.

The primary additions include a new educational ATV trail, several expanded campgrounds and more canoe and primitive/remote campsites, more hiking and bike trails, and expanded interpretation/education programs and facilities. The major interpretation/education expansion being a new forestry awareness and education center. Most of the existing and proposed recreational facilities are shown on Maps #62 Current Recreation and Map #65 DNR Boat landings and Canoe Routes.

RECREATION MANAGEMENT OBJECTIVES

- Provide varied and high quality recreational opportunities through well-designed and maintained facilities in a highly attractive outdoor environment.
- In harmony with the Forest's land management program,

WHAT'S THE DIFFERENCE BETWEEN...

Rustic campgrounds:

Fewer than 75 campsites, pit toilets and hand pump water (no flush toilets or showers)

Modern campgrounds:

Typically include more than 75 campsites, flush toilets, showers.

Primitive camping:

Single, remote campsites, usually walk-in or canoe-in. three types of camping fall within this category: reservable-remote, canoe, and backpack camping.

[refer to NR 44.07(7)(e) for additional information]

RECREATION MANAGEMENT

Recreational use on the NH-AL is highly diverse, occurring across a wide spectrum of settings, ranging from well-developed, intensively used complexes to remote hiking, canoeing and primitive camping. The NH-AL's recreation program integrates public use into all ecological settings and management areas consistent with the area's capability the plan's land management objectives. In some management areas, like the Forest Production Areas and Native Community Management Areas, recreational use is accommodated as an important but secondary objective. In these areas, trails or dispersed primitive camping as well as traditional hunting, fishing, boating are the predominant recreational uses. In other areas of the forest managing for recreation or to provide a specific type of recreational setting is the primary objective. These areas are classified as either as a Recreation Management Area, Scenic Management Area, or Wild Resources Management Area.

This plan section summarizes the NH-AL's property-wide recreation management program. It covers both the existing recreational uses, facilities and policies that will be retained under the revised plan and the new changes, primarily facility expansions planned for the future. Additional site-specific management prescriptions for recreation facilities within the Recreation Area, Scenic Area, and Wild Resources Area are included in the Land Management Section.

Recreation Management

Table 2.22 - Modern Family Campgrounds

Modern Family Campgrounds:	Existing Sites	Proposed additions	Future Total Sites
Big Muskellunge Lake	81	0	81
Carrol Lake (new location)	0	+60	60
Clear Lake	101	+50	151
Crystal Lake	100	0	100
Firefly Lake	70	+50	120
Total	352	+160	512

Table 2.23 - Rustic Family Campgrounds

Rustic Family Campgrounds:	Number of Existing Sites	Proposed Changes	Future Total Sites
Big Lake	72	0	72
Buffalo Lake	52	+8	60
Carrol Lake – <i>(to be converted to a day-use area after the new 60 unit modern campground is constructed)</i>	19	-19	0
Cunard Lake	33	+17	50
East Star Lake	30	+30	60
Indian Mounds Area	39	0	39
North Trout Lake	48	0	48
Plum Lake	18	0	18
Razorback Lake	55	+10	65
Sandy Beach Lake	37	0	37
South Trout Lake	24	0	24
Starrett Lake	46	0	46
Upper Gresham Lake	27	+30	57
West Star Lake	18	0	18
Total	518	+76	594

maintain the general level and variety of recreational uses and experiences the NH-AL has offered in the past, and expand opportunities for camping, hiking and snowshoeing, backpacking, biking, and interpretation/education. In addition, provide new opportunities for ATV riding.

- Maintain abundant opportunities for hunting, boating, fishing, trapping, hiking, nature study, and remote, non-motorized recreation.

Camping

The NH-AL provides a variety of modern, rustic, and primitive camping opportunities. Currently there are 18 family campgrounds offering approximately 900 campsites, plus two outdoor group campgrounds that accommodate up to 100 people. Compared to state parks, most of the NH-AL's campgrounds are small. Just over one third of the NH-AL's campsites (352 sites in four campgrounds) are served by showers and flush toilets, but do not have electric hook-ups. The remaining campgrounds are rustic with only the basic

Table 2.24 - Primitive Camping

Primitive Camping Type:	Existing Sites	Proposed additions	Future Total Sites
Canoe camping	74	10	84
Reservable-remote camping	12	5	17
Rustic backpack camping	0	10	10
Backpack camping	NA	NA	NA
Deer Hunter camping	NA	NA	NA

amenities, such as hand-pumps for water and pit toilets. Five campgrounds offer special facilities, including sites with electricity, for disabled campers. In addition to the campgrounds, for people wanting less social, more primitive camping, there are 131 remote canoe and reservable-remote (i.e. wilderness) campsites are scattered across the NH-AL. The NH-AL also offers backpack camping along specific trails by permit, and hunter camping is also available during the traditional November deer gun season.

The future camping expansions are based on camping demand projections. The completion of these expansions will depend on continued demand and available funding. The proposed campground expansions would occur primarily in developed areas of the NH-AL to avoid adversely impacting new areas. Other considerations used when determining the best location for campground expansions were lake size and use, and the availability of suitable land for expansion.

In addition to adding new campsites, all or portions of some campgrounds may be renovated. To address safety or site suitability concerns, at the discretion of the Forest Superintendent, campsites may be closed and relocated to another part of the campground. Also, the density of campsites (i.e. separation distance between sites) in some campgrounds is substantially out of compliance with newer requirements of NR 44.07(7)(e). It requires 100 –200 feet between sites for rustic campgrounds and approximately 100 feet for modern campgrounds. The purpose of this wider campsite spacing is to enhance privacy and minimize conflicts between camping groups. Over time, some campsites will be closed and relocated to reduce campsite density and bring the campgrounds more closely into alignment with the intent of the code.

Modern Family Campgrounds

As of 2004 the NH-AL has four modern campgrounds, Crystal Lake, Big Musky, Firefly, and Clear Lake, with a total of 352 sites. They are shown on Map 62, Current Recreation. Modern campgrounds on the forest typically have paved roadways, flush toilets, and showers, but not electrical hook-ups. Generators are allowed by permit during certain hours of the day. The existing campgrounds will be maintained and 160 new campsites will be added. Sixty of these will be at a new campground on Carrol Lake. The expansions will bring the NH-AL's

Recreation Management

Table 2.25 - Group Campgrounds

Group Campgrounds (Rustic):	Capacity at Existing Sites	Proposed Future Capacity
Buffalo Lake - North Shore	0	50
Jag Lake	50	50
North Muskellunge	50	50
Total	100	150

number of modern campsites up to 512. The table below shows the changes by campground.

The new campground at Carrol Lake will be constructed at a new site on the west side of the lake. (When it is built the rustic 19 site campground on the east side of Carrol Lake will be converted to a day-use area.) Facilities at the new Carrol Lake campground will include a shower building, flush toilets, pressurized drinking water, and a boat landing and swim area.

For additional site details for these campgrounds see the Crystal Lake Recreation Management Area and the Clear Lake Recreation Management Area write-ups in the Land Management Section.

Rustic Family Campgrounds

Many people have come to associate traditional rustic style campgrounds with the NH-AL. Of special attraction is their small, more quiet nature. Typically, these campgrounds range from about 20 to 70 campsites, usually having a wider spacing than modern campgrounds. They have only minimal facilities - hand-pumped water, pit toilets, and no electricity. Many campers feel offering this traditional style of camping is a special niche for the state forests, and there is a strong demand to maintain or expand this opportunity on the NH-AL.

Table 2.26 - Day Use Areas

Day Use Areas	Status	Additional Info
Carrol Lake	New	Toilet and beach
Crystal Lake	Existing	Toilet and beach
Clear Lake	Existing	Toilet and beach
Big Arbor Vitae Lake	Existing	Toilet and beach
Indian Mounds (Lake Tomahawk)	Existing	Toilet and beach
Little Star Lake	Existing	Toilet and beach
Nichols Lake	Existing	Toilet and beach
Cathedral Point (on Trout Lake)	Existing	Toilet and beach
Sandy Beach Lake	Existing	Toilet and beach
White Sand Lake	Existing	Sm. Parking lot
Sparkling Lake	Existing	Sm. Parking lot
WI River	Existing	Sm. Parking lot

As of 2004, the NH-AL has 14 rustic campgrounds totaling 518 campsites. See Map 62 Current Recreation. By permit, generators will be allowed to operate during specific hours. All existing rustic campgrounds will be maintained under the plan, except for the 19 site Carrol Lake campground. (It will remain until after the new modern campground is built on the other side of the lake. Then the site will be converted to a day-use area). Expansions will also occur in five campgrounds, adding a total of 76 additional rustic sites. The table below shows a full listing of the forest's rustic campgrounds and the specific, proposed changes.

Primitive Camping

The NH-AL currently offers four types of primitive camping - canoe camping, reservable-remote camping, and backpack camping. The current locations of existing designated primitive campsites are shown on Map 62 Current Recreation. Permits are also offered for deer camps during the traditional November deer gun season. Primitive campsites generally are widely dispersed, and have a minimal clearing and a primitive soil surface. Primitive campsites are limited to a tent clearing, fire ring, box latrine, and a picnic table (except in a Type 1 recreational use setting where tables are prohibited). Each type of primitive camping is discussed below.

The State Forest Superintendent has the authority to close and relocate primitive campsites as needed.

Canoe Camping

There are currently 74 primitive remote canoe campsites located on more than 20 lakes across the NH-AL's lakes and rivers. These sites are accessible only by water, stays are limited to one night and they can not be reserved. Ten new canoe campsites will be developed at sites to be designated by the Forest Superintendent.

Reservable-remote camping

The NH-AL has 12 reservable-remote primitive campsites. They are on Allequash, Day, Nebish and Clear Lakes, and they are accessible only by water. These sites may be occupied up to 14 days per visit. Five new additional sites will be added. They are on Bittersweet, Prong, and Oberlin Lakes. (See the Bittersweet Recreation Management Area in the Land Management section for more site-specific details.) The campsites on the newly acquired Rainbow Flowage will be designated for reservable-remote camping.

Rustic Backpack Camping

A new type of primitive camping, rustic backpack camping, is being introduced on the forest. Up to 10 primitive campsites will be built along a new 10-20 mile long backpacking trail to be developed near Nixon Lake in the Jute Flats area of the forest. Stays will be limited to one night at a site.

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Table 2.27 - Non-Motorized Trails of the NH-AL

Trail Name	Designated Uses				Length (miles)	Average Width	NR 44 Classification
	Hike	Bike	Ski	Snowshoe			
NEW TRAILS:							
Bittersweet	X	-	-	X	8.4	6'	Lightly developed
Clear Lake	X	-	-	X	5	6'	Lightly developed
Crystal-Muskie bike trail	X		-		1.6	12'	Fully developed
Crystal Lake Nature Trail	X			X	0.5	12'	Developed
Jute Lake Flats hiking trail	X	-	-	X	15-20	6'	Lightly developed
Vandercook mountain bike trail	-	X	-	-	20-25	6-12'	Lightly developed
EXISTING TRAILS:							
Crystal Lake Nature Trail	X			X	0.5	12'	Lightly to mod. dev.
Escanaba	X	-	X	-	11.0	6'	Primitive to lightly
Fallison Nature Trail	X	-	-	X	4.0	6'	Lightly developed
Lumberjack*	X	X	X	X	12.5	16'	Lightly developed
Madeline	X	X	X	-	9.5	16'	Lightly developed
McNaughton	X	X	X	-	10.0	12'	Lightly developed
North Trout Nature Trail	X	-	X	X	1.0	6'	Primitive
Powell*	X	-	-	X	8.5	16'	Lightly developed
Raven	X	X	X	-	11.0	16'	Primitive to light
Raven Nature Trail	X	-	X	-	1.5	6'	Primitive
Razorback Ridges	X	X	X	X	23	unknown	Primitive to light
Shannon	X	X	X	X	7.0	12'	Lightly developed
Star Lake Nature Trail	X	-	-	X	2.5	6'	Primitive

* Un-groomed ski trails

Backpack Camping

Permits for backpack camping are issued for camping along the designated snowmobile trails and along the Lumberjack cross-country ski trail during the off season. Backpackers are allowed to camp at any location along the trail they choose as long as it is at least 50 feet off the trail and 200 feet from a body of water. No facilities of any kind are provided.

Deer Hunter Camping

An additional somewhat unique and primitive camping opportunity is offered during the November nine-day gun deer season. Deer camps have been a tradition on the NH-AL for decades. Hunter Camping is allowed only along certain woods roads. Tents or camper units are allowed, no facilities are provided. Free special camping permits, available at the state forest office, are required.

The table below displays the current and proposed additions to primitive camping opportunities on the NH-AL.

Group Campgrounds

As of 2004 there are 2 group campgrounds on the NH-AL, there is space for up to 50 campers at each location. These campgrounds, at Jag Lake and North Muskellunge Lake, are equipped with pit toilets and hand-pumped water. Group campgrounds provide an important camping opportunity for large groups such as boy/girl scouts or church groups to have a rustic camping experience while not affecting other campers.

These two campgrounds will be maintained and an additional 50 person capacity group campground with similar amenities will be constructed at Buffalo Lake.

Day-use or Picnic Areas

Day-use areas typically provide for activities like picnicking, sunbathing, and swimming. Some sites may also feature scenic vistas, hiking and nature trails, and boat landings, sometimes with fishing piers. As of 2004 there are eleven designated day-use areas at various locations across the NH-AL. See the listing in the table below. Also, there are many other undeveloped, undesignated sites that are frequently used for these activities as well.

All the existing designated day-use areas will be continued under the plan, and a new day-use area is to be developed at Carrol Lake in place of the rustic 19-site campground. This new day-use area will include a picnic area with about 10 tables, toilets, a beach, a mobility-impaired accessible boat landing and fishing pier, and a paved parking lot with space for up to 30-40 cars.

Non-Motorized Trails

The NH-AL will continue to offer a variety of designated trails under the Proposed Master Plan. The phrase "designated trails" refers to trails that are designed, maintained, and limited to specific uses, such as hiking or interpretive nature trails. Currently, there is a large non-motorized trail system

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located within the NH-AL State Forest. These trails are available for recreation activities including hiking, biking, cross-country skiing, snowshoeing. In addition to designated trails, the NH-AL offers hundreds of miles of “woods roads”, which are open to hiking, biking, horseback riding, and snowshoeing (unless marked closed for a specific activity).

Each type of trail is discussed below. Many of these trails are shown on Map 62, Current Recreation. Table 2.27, Non-Motorized Trail of the NH-AL, lists both the existing and proposed non-motorized trails within the NH-AL state forest, designated used, length, width and level of development according to NR 44 classification.

Biking

A new 1.6 mile paved bike trail known as the Crystal-Muskie Campground biking loop will be constructed within the Crystal and Muskie campgrounds. The path will connect to the existing paved Boulder Junction trail, which is maintained by the community of Boulder Junction. This highly popular, surfaced bike path currently extends from Boulder Junction to the NH-AL Crystal Lake Picnic Area and Campground. In the future, the NH-AL will maintain the option of cooperating with local communities in developing additional miles of paved bike paths along highway rights-of-way through the forest.

Mountain biking will continue on the state forest-operated mountain bike trails including Lumberjack, Madeline, McNaughton, and Shannon trails. These trails total 39 miles and a trail pass is required. The Razorback Ridges mountain bike trail is operated through a land use agreement with a private organization that will continue under the Plan.

A new 20-25 mile long mountain bike trail loop will be developed. The new trail system will be located south of Hurrah Lake off Vandercook Road, north of Big Arbor Vitae Lake in Vilas County. This trail system will be designed to challenge different ability levels. A portion of the trail will be routed on closed forest roads, which will provide a wide tread surface suitable for casual or family biking. A “challenge” segment of the trail will be developed with a narrow course in a hilly area. Under the new trail designation, the best available design standards will be employed to ensure minimal erosion from mountain bike use.

The Escanaba and Raven hiking trails have been used for mountain biking. As they were not designed for bikes and as a result they are experiencing significant erosion. They will be closed to mountain bike use. Mountain biking opportunities on woods roads and snowmobile trails will continue to be abundant across the forest.

Hiking and Backpacking

The existing 18.5 miles designated hiking trails will be maintained under the Plan. Day hiking opportunities will continue to be offered on the forest along cross-country ski trails, nature trails, on the extensive woods road network, and off-trail throughout the forest.

A new five-mile hiking/snowshoeing trail will be developed around Clear Lake. (Please refer to the Area 25 map in the Land Management section in this chapter.) A new 10-20 mile hiking trail system for rustic backpacking will be developed near Nixon at the Jute Lake Flats area. A number of primitive campsites will be located along this route for backpacker use.

Ski Trails

Currently, 70 miles of designated cross-country ski trails are available on the NH-AL. This trail system will be maintained. Four trails are currently groomed by the WDNR: the Raven Trail, Madeline Trail, McNaughton Trail, and Escanaba Trail. Other ski trails, including the Shannon Trail, Razorback Ridges, and the North Lakeland Discovery Center (formerly the Statehouse Lake Trail) are maintained by private organizations through agreements with the WDNR. Some small adjustments will be made to the Shannon and McNaughton Trails to avoid conflicts with town roads. Ungroomed ski trails include the Lumberjack Trail and the Powell Trail. Cross-country skiing in ungroomed areas is also available across most of the NH-AL.

Snowshoe Trails

Snowshoeing is currently allowed everywhere on the forest, except on groomed, designated cross-country ski trails. In addition, the Plan will designate and promote the use of Fallison Lake, North Trout Lake, Star Lake, and the proposed Crystal Lake Nature Trails as ungroomed winter snowshoe trail routes. Powell and Lumberjack trails will continue to be open for snowshoeing as well as skiing. The new Clear Lake trail described under the hiking trail section will also be available for snowshoeing.

Horseback Riding

There will be no change in the horseback riding opportunities on the forest. While the NH-AL does not manage designated equestrian trails, riding opportunities are abundant on undesignated trails. Horses may be ridden on roads, snowmobile trails, and other undesignated trails that are not signed as closed. Horseback riding is only prohibited on designated nature, hiking, or mountain biking trails. These trails have “no horses” sign posted at the trailhead. Through land use agreements, several equestrian clubs and other organizations maintain public horse trails on state forest land. One such trail,

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the Fort Wilderness Trail, is located in the southeast portion of the NH-AL state forest.

MOTORIZED TRAILS

Snowmobile Trails

Currently, the NH-AL has an extensive 400-mile plus network of snowmobile trails that link state land with private and county snowmobile trails. Snowmobile trails within the NH-AL are generally developed to NR 44's Lightly Developed trail standards and they are operated partly on state land and partly on private land. Sections of the trail on private land are used through land lease agreements, often operated by snowmobile clubs.

The snowmobile trails located in the NH-AL will remain constant under the revised Plan with a no-net-reduction of the total snowmobile mileage on the forest. A two-mile reroute of a snowmobile trail around the Bittersweet Recreation Area will result in a about a 2.2 miles increase in trail miles.

At the discretion of the Forest Superintendent, changes to the NH-AL snowmobile trail system may be made to ensure safety, to keep snowmobiles off roads, in response to the loss of route access across private lands, if resource degradation develops, or if unacceptable user conflicts occur. Any changes must be consistent with the requirements of the area's land use classification.

Cycles, 4x4s, and other licensed motor vehicles (forest road access)

The NH-AL policy regarding the use of street licensed motor vehicles will remain unchanged. Under this policy, licensed cycles, 4x4s, and other vehicles meeting street-legal requirements may operate on open NH-AL roads (including logging roads) that are not bermed, gated or signed as closed.

Experimental ATV Trail

The draft plan proposes a new and unique type of motorized recreation trail experience for riders of varied skill levels, interests and ages that combines traditional recreation and education with ATV riding. The trail would pioneer innovative management techniques, demonstrate, evaluate, and promote safe and ethical motorized recreation and to integrate traditional recreational activities.

The design for the proposed trail will follow the traditions and philosophy of the forest. The Northern Highland-American Legion State Forest is a leader in pioneering and adapting innovative methods of resource management, particularly in the areas of forest restoration, forest inventory, habitat classification and wildfire control. While forestry is the primary management goal, the state forest has always served a variety of compatible needs. This typically includes outdoor and family oriented recreation. The motorized recreation and outdoor education trail would encourage family participation. It's design and purpose would be a safe and conservative approach to a growing form of recreation.

EVOLUTION OF THE ATV TRAIL IN THE PLANNING PROCESS

The potential for ATV (all terrain vehicle) use on the Northern Highland-American Legion State Forest has been controversial throughout the master planning process. (Currently ATVs are not allowed on the NH-AL, and ATV use, if allowed must be on designated trails authorized by the property master plan.) During the alternatives phase of planning the public presented strong arguments both supporting and opposing ATVs. Following the preferred alternative, this topic was one of the most divided issues in the master plan.

The preferred alternative proposed a future ATV trail segment to pass through a portion of the forest. As discussed in the plan alternatives, the early goal in this planning process was to provide an ATV trail connector trail across the forest to connect existing trails outside of the NH-AL. In every case, attempts to identify potential trail options met with road-blocks. Difficulties included locating a site with suitable soils and natural environment, avoiding conflicts with residents and other recreators, or finding routes that can link to trail systems outside the NH-AL.

The Department recognizes ATV riding as a rapidly growing sport with known issues and controversy. To address inevitable growth and demand for facilities and space, the Department favors a proactive approach – to lead by example rather than to simply accommodate. In consideration of public concerns, the state forest is offering a modified approach to the previous trail proposal. The hope is that, together with public cooperation, a solution will emerge to a complicated management challenge.

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ATV Trail Objectives

Develop a state-of-the-art recreational “demonstration” and “education” trail where:

- The trail serves as an educational site to train ATV owners, DNR and other agency staff about:
 - “trail skills” – riding skills, safety and rescue, ethics and etiquette.
 - “trail management” – maintenance and development, policy and enforcement.
 - “trail aesthetics” – design & construction, natural resource awareness and appreciation.
 - “trail conservation” – basic conservation concepts, resource stewardship.

The trail is a field laboratory, serving as a test area where new trail structures, design techniques and trail use are pioneered and researched.

- A variety of traditional recreation and education opportunities are integrated with the trail’s design, including interpretation of forestry management and ecological concepts.
- The trail is evaluated and monitored regularly for effectiveness of trail design and ecological affects.
- The trail is a cooperative effort of the Dept. of Natural Resources, citizens, recreation groups and other public or private organizations.
- The proposed trail is developed to comply with Wisconsin’s evolving criteria for ATV trails on state properties which includes the following evaluation parameters:
 - Property Designation / Funding source
 - Potential Effects on the Resources
 - Safety
 - Social Consideration
 - Economic impact
 - Cooperation
 - Management / Administrative Criteria
 - Enforcement
 - Monitoring

Proposed Trail Location and Management

The proposed trail system would be loops totaling 8-10 miles in Little Rock Lake/Camp Lake area west of US Highway 51, shown on Map 64. The proposed trail site has upland soils and relatively flat terrain. Few alternate recreation uses occur there. The location is currently undeveloped and access is closed to most uses except snowmobile travel. A network of existing logging roads can be adapted for ATV trail use.

The Department of Natural Resources would determine trail opening and closing dates, and may close the trails during times riding would cause unacceptable damage. Time of day and season of use would be determined by a variety of factors including rider interest and demand, rider safety and trail suit-

Table 2.28 - Motorized Trail Use

Trail Use	Length (miles)	Average Width	NR 44 level of Development
Snowmobile Trails	400	12 – 16 ft	Lightly developed
ATV education trail	8-10	12 –16 ft	Lightly developed

Table 2.29 - Boat Landing Type

Boat Landing Type	# of Landings
Cement plank	73
Gravel	22
Canoe slide	9
Carry-in	11
Unimproved	21
TOTAL	136

ability to weather or seasonal variations. Only State registered machines meeting legal requirements for design and safety would be allowed on the trail. All existing regulations and safety rules would apply. The trail would have regular monitoring and evaluation and routine maintenance and law enforcement patrols.

A Cooperative Venture

A key to the success of the proposed trail would be the involvement of recreation enthusiasts working in partnership with Department of Natural Resources personnel. Organized ATV groups would be invited to participate and to share expertise. Private assistance would be needed for tasks such as securing funding sources, providing trail maintenance, staffing trail safety patrols, and conducting education and research. The Department will work with the trail partners to determine responsibilities for conducting trail monitoring and evaluation efforts.

An Experimental Effort

The trail will be operated experimentally as a trial project. Annually the trail and its use will be reviewed to determine if the goals and objectives are met and whether the project should be continued or if other operational changes are needed. Success would be measured by the project’s ability to achieve sustainability standards set by statewide criteria, to facilitate educational goals, and to attract adequate trail usage to justify efforts put into the venture. If evaluation and inspection determines that goals and sustainability cannot be met or maintained, then the Department may close the trail. And if motorized trail use is terminated, the Department will redesignate the trail system for a suitable alternate recreational use.

Swimming

Swimming is occurs at both non-designated and designated swimming beach areas. A designated beach has a regulatory

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marker or posted notice. Most designated swimming areas have toilet facilities. Non-designated swim areas are any waters that are not signed as “closed to swimming.” State forests do not supply lifeguards at any beaches; swimming is at the users discretion.

All nine existing designated swimming beaches will continue to be maintained under the revised Plan. These beaches are at the Indian Mounds picnic area and Indian Mounds campground, Crystal Lake campground, Clear Lake picnic area, Muskie Lake campground, Big Lake campground, Jag Lake and North Muskellunge group campgrounds, and little Star Picnic area. In addition, a new swimming beach will be designated at the new Carrol Lake day use area.

Boating, Canoeing Access and Canoe Trails

With 900 lakes and many streams water-based recreation is a primary attraction for NH-AL visitors. The master plan’s focus relates primarily to access sites because on-the-water operation of watercraft, including jet skis, falls mainly under the control of local governments rather than the state.

Under the revised plan, boating and canoeing access sites (boat landings) will be maintained. A new, additional landing will be added to serve the proposed new campground on Carrol Lake. (Some changes are proposed in the lakes where motorized watercraft may be used or where motor use is limited to electric motors.

There are more than 100 designated boat launch sites in the NH-AL. (*Please see Map 65, DNR Boat Landings and Canoe Routs*). Boat landings within the NH-AL have different characteristics regarding degree of development and type of access to the water. These boat landing types include canoe slide, carry-in, cement plank, gravel, and unimproved. An unimproved boat landing is characterized is the least developed of the types, where no effort used to create the landing. These landings usually include a pull-off for cars on a dirt road where users are required to walk to the lake. The table below summarizes the existing landings by type.

The designated access type and level of development for each boat access site is shown in the Appendix.

An extensive network of canoe trails and portages can be found within the forest boundary. The most popular canoe routes are shown on Map 65, DNR Boat Landings and Canoe Trails. Canoe campsites typically are found along these routes. Portages are not actively maintained and are subject to change. Current trail location information may be found by contacting the forest office.

Fishing

Fishing regulations are outside the scope of the Proposed Master Plan. The revised Plan supports fishing primarily by providing water access to anglers, which includes boat landings and fishing piers. Fishing piers are usually located in association with campgrounds and picnic areas, a number of the piers are disabled-accessible. The Forest Superintendent may construct or relocated fishing piers as deemed necessary, consistent with the landuse classification standards for the site.

Some access sites are open in the winter for ice fishing. The Towns determine the plowing of town roads for ice fishing access.

HUNTING AND TRAPPING

The NH-AL will continue to offer abundant opportunities for small and big game hunting and trapping. The diverse landscape of different forest types, lakes and wetlands currently found on the property will continue to provide important habitat for many game species. Hundreds of miles of logging roads and non-designated trails will continue to be open for hunting access by foot and motor vehicle. Non-motorized areas where one can seek a more remote, solitary walk-in hunting experience will remain at approximately current levels. Hunting and trapping regulations are outside the scope of the NH-AL Master Plan.

EDUCATION AND INTERPRETATION

Presently, the NH-AL maintains four, self-guided interpretive trails, including, Fallison, Raven, North Trout, and Star Lakes as well as the Manitowish River Canoe Trail. A rustic Nature Center exists in the Crystal-Muskie Campground complex. The NH-AL naturalist holds interpretive programs at campground throughout the summer. In addition to the state programs, the North Lakeland Discovery Center, operated on the forest by a private organization, also provides a variety of educational programs that are open to the public. The existing education/interpretation facilities will be maintained under the revised plan. Also, the following facility additions are planned:

Crystal-Muskie Nature Center and Clear Lake Campground

A rustic amphitheater will be built at the Crystal-Muskie Nature Center to support educational programs. The Crystal-Muskie facility will be further enhanced by the addition of a new one-mile nature trail adjacent to the interpretive building. The trail will include a disabled-access loop.

Recreation Management

At the Clear Lake campground the delivery of educational programs will be improved by the construction of a new summer-use interpretive shelter building.

Forestry Awareness, Education and Visitor Center

The objective of this new year-round facility is to offer campers, school children and local visitors the opportunity to learn about themes found on the NH-AL such as, ecological, economic and social benefits of the forest. Through permanent and temporary displays they will also be exposed to general natural resource topics, such as sustainable forest management, natural communities, and wildlife management. Other amenities that may be provided at the Center are public rest-

rooms, conference room, presentation rooms and classrooms, Internet access, an amphitheater, staff offices, and a gift shop. Additionally, visitors will have the opportunity to interpret the natural and cultural history of Wisconsin's northern forests on a new 1-2 mile nature trail adjacent to the Center. It would include a disabled-access loop.

The specifics of this center, including its location, will be determined by a future design planning effort to be completed within the next decade. The site location will be chosen based on such factors as available space, a scenic and peaceful vista and ease of access for all visitors including the handicap. The development of this facility offers new opportunities for

Table 2.30 - NH-AL Leased Land Agreements

Lease	Use or Site Name	Acres
Town of Boulder Junction	Shooting Range	56 acres
Vietnam Vets - Chapter 256 of Minocqua/Caywood	Shooting Range	5 acre
Northwoods Wetland and Wildlife Club - Mercer	Shooting Range	40 acre
Town of Lake Tomahawk	Recreation Park	5 acres
Town of Arbor Vitae	Big Arbor Vitae Picnic Area	3 acres
Town of Boulder Junction	Recreation Area / Chambers Bldg	7 acres
Town of Boulder Junction	Nichols Lake Picnic Area	20 acres
Town of Boulder Junction	Boulder Lake Landing	1.3 acres
Town of Manitowish Waters	Rest Lake Recreation facility	10 acres
Town of Plum Lake	Plum Lake Recreation facility	2.9 acres
Town of Plum Lake	Star Lake Picnic Area	5 acres
Town of St. Germain	Fern Ridge Trail	1.75 acres
Future Farmers of America	Jag Lake Camp	4.4 acres
YMCA	Camp Jörn Trail System	7 acres
YMCA	Camp Manitowish Trail System	5 acres
Elmer Packard, Jr.	Trail System in Newbold	3.5 acres
NON-RECREATION LEASES:		
Town of Woodruff	Burn pad / Compost site	5 acres
Town of Lake Tomahawk	Burn pad	5 acres
Town of Arbor Vitae	Burn pad / Compost site	5 acres
Town of Boulder Junction	Airport runways	66 acres
UW-Madison	Forestry Genetics Project	26 acres
		Total 283.85
SNOWMOBILE CLUB AGREEMENTS:		
		Trail Miles
Town of Manitowish Waters	Bike Trail	2 miles
Town of Boulder Junction	Paved Bike Trail	9 miles
Oneida Co. Trail Corporation	Bike/Hike Trail in Woodruff and Lake Tomahawk	12 miles
Town of Plum Lake	Trampers Trail system	Not developed
Sayner-Star Lake Chamber of Commerce	Razorback Ridges Ski and Mtn Bike Trails	32 miles
North Lakeland Discovery Center	Ski, Bike and Hike Trails	12.4 miles
North Lakeland Elementary School	Ski Trail	3.2 miles
Fort Wilderness	Ski and Hike Trail	26.9 miles
		97.5 Total miles

Recreation Management

The 1982 master plan designated three “wild areas”- Frank Lake, Partridge Lake and Indian Creek. They were public non-motor areas where some forest management occurred but all Department managed roads were closed to public use. Limited snowmobile trails crossed the area.

Like the wilderness area designation, the wild area designation no longer exists due to changes in the Departments land use classification system. However, in order to continue the same type recreational opportunity (i.e. large areas with only limited public motor vehicle access) the revised plan designates two areas as “Semi-Remote Areas” which will have similar characteristics. The boundaries of these new areas are similar but not identical to the wild area’s boundaries. The new semi-remote area boundaries have been redrawn somewhat to include lands that better fit the objectives and exclude lands that don’t. For example, several popular motor-use lakes, Allequash Lake, Partridge Lake, and Nebish Lake, that were within the wild areas will be excluded from the new semi-remote areas.

Under the revised plan the Indian Creek Wild Area will no longer have a special recreational use designation because, being mainly bog with some upland jack pine, it provides only low recreational opportunity. It will be managed as part of the Peatland Wetlands Native Community Management Area. No changes in recreational facilities or access are planned.

Department partnerships with other organizations and friends groups.

RECREATION LAND USE AGREEMENTS

The WDNR has a long history of cooperation with private organizations to manage and maintain recreational and essential community facilities. Examples of land use agreements include the Razorback Ridges trail area, the North Lakeland Discovery Center, over 400 miles of snowmobile trails on the NH-AL, several youth camps, many smaller trail systems, and public shooting ranges. Land use agreements on the NH-AL will continue to be evaluated periodically.

The Leased Land Table, below, lists the lease name, type of land leased, and number of acres or miles currently under lease agreements.

REMOTE AND NON-MOTORIZED RECREATION

The NH-AL offers a wide range of recreational settings and opportunities. In addition to well developed intensively used facilities like campgrounds and day-use areas there also are opportunities to enjoy the peace and solitude of areas removed from motorized uses. These areas range from nearly non-developed passively managed areas to managed areas that are closed to public motorized access. Recreational facilities within these areas are limited primarily to trails and primitive campsites. These less-intensive recreational settings are provided in the Manitowish Wild Resources Area, the motor-restricted lakes, the Bittersweet Lake Recreation Management Area, and the Semi-remote Recreation Areas. Each is discussed below:

Manitowish Wild Resources Area

Wild Resources Areas provide remote, quiet, non-motorized recreation where natural ecological processes predominate (no timber management), and evidence of human impact is low.

The 6,150 acre Manitowish Wild Resources Area is located in the northwest corner of the NH-AL.

This area contains a remote stretch of the Manitowish River, which is surrounded by bogs, forested wetlands, and some upland areas. Several primitive canoe campsites are maintained along the river. This area will continue to be maintained in the same manner as it had been under the 1982 plan where it was designated a wilderness area. (Recent changes in the Department’s land use classification system has replaced the wilderness area designation with wild resources management area.) Refer to the Land Management Section for a more detailed description of management of this area.

Bittersweet Lake Recreation Area

The new Bittersweet Lake Recreation Area encompasses 2,300 acres area located just north of Highway 70 in Vilas County. It contains four undeveloped wild lakes (Bittersweet, Prong, Oberlin, and Smith Lakes) surrounded by a mixed northern hardwood forest. Access to the area has been and will continue to be only by primitive road and primitive or lightly developed trails. A core area surrounding the lakes will be a Non-Motor Area, except for a single access road to Bittersweet Lake and a short section of snowmobile trail along the southwest side of the area. Recreational facilities within this area are limited to hiking trails and primitive, reservable campsites. Refer to the Land Management Section for a more detailed description of management of this area.

Recreation Management

Frank Lake and Partridge-Nixon Lake “Semi-remote Areas”

The new Partridge Lake Semi-Remote Recreation Area (formerly the Partridge-Nixon Wild Area) includes approximately 12,900 land acres, all but 300 acres are state-owned. Frank Lake Semi-Remote Recreation Area (formerly the Frank Lake Wild Area) includes approximately 7,400 land acres, all of which is state owned. They are shown on Map 66, Proposed Semi-Remote Areas.

The management objective for these areas is to provide a somewhat remote, non-motorized recreational opportunity. The following management prescriptions apply:

- Limited public vehicle access - the town roads and existing snowmobile trails will remain open. All logging roads, active or passive, will be closed to public access (in the past nearly all have been bermed or gated).
- Lakes will be limited to non-motorized or electric powered watercraft.
- No new recreational developments are permitted.
- Timber harvesting and other resource management activities will occur within these areas according to the requirements of respective management area as described in the Land Management section of this plan.
- Motor vehicle use by Department staff or its contractors engaged in management or enforcement activities is permitted.

Non-motor and Electric Motor Lakes

The 900 lakes within the boundaries of the NH-AL provide some of the property’s most sought after recreational attractions. A highly unique opportunity available on the NH-AL, more so than anywhere else in the region, is a number of undeveloped, non-motor or electric-motor-only lakes where one can find a quiet, and often a more remote experience. In total, **85.5 lakes** have some type of special designation that prohibits or limits the use of motorized watercraft. The breakdown by designation category is shown in the table below. Table 2.33 at the end of this section has a complete listing of all special use designations. These lakes are also shown on Map 60, Proposed Special Lake Designations.

The state-wide qualifications for wild and wilderness lakes, now defined by NR 44, have changed and become more restrictive since the 1982 NH-AL plan was approved. Under the new definition electric and gas motors are prohibited. Previously they were allowed on wild lakes with Natural Resources Board Approval. In the draft plan the traditional use patterns are generally being continued; therefore, the designation of a number of lakes has been changed to match the current type of use or development. Table 2.33 at the end of

Table 2.31 - Summary of Acreages for Non-motor Recreation Lands

Area Type	Acres (State Owned)
Wild Resources	6,150
Bittersweet Non-Motor Area	2,000
Frank Lake Semi-Remote Area	7,400
Partridge Lake Semi-Remote Area	12,600

this section lists the lakes with special use designations. An analysis of the specific changes in the lake designations from the 1982 to the revised plan may be found in the impact analysis in Chapter Three.

An overview of these lake designations is given below:

Wilderness Lakes: These lakes provide a wilderness experience with no motors (gas or electric) and a ¼ mile buffer without roads or motorized trails, timber harvesting, or other human influences, except primitive campsites.

Wild Lakes: These lakes provide a somewhat remote experience, with no motors (gas or electric) and a 400 ft. buffer area with no timber harvest or motorized recreation. Developments may include an access road, boat landing, and primitive campsites. Other structural developments are not allowed.

More detailed definitions and requirements for wilderness and wild lakes may be found in the Wild Resources Management Area in the Land Management Section of this plan and in NR 44.06(10)(f).

Public Non-Motor Lakes: Public Non-motor lakes provide a quiet recreation setting, with no use of motors (gas or electric) by the public. All motors are permitted for management and enforcement activities. There are no special restrictions on shoreline management and development.

Electric-Motor Lakes: Battery or non-motor powered watercraft only are allowed for recreational use. All motors are permitted for management or enforcement activities. There are no special restrictions on shoreline management and development.

Table 2.32 - Summary of Non-motor and Electric Motor Lake Designations

Proposed Designation	Proposed # of Lakes
Wilderness Lake	6
Wild Lake	34
Public Non-motor Lake	21
Electric Motor Lake	24.5
TOTAL	85.5

Recreation Management

Table 2.33 - NH-AL Designated Non-motor and Electric Motor

Lake Name Access Designation	Proposed Water Mgmt. Designation	Proposed Lake Designation	Lake Name Access Designation	Proposed Water Mgmt. Designation	Proposed Lake Designation
BRUSH LAKE	No Motors Allowed	Wilderness	4 small unnamed lakes		
CLEAR LAKE	No Motors Allowed	Wilderness	north of White Sand Lake	Public Non-Motor	None
KELLY LAKE	No Motors Allowed	Wilderness	BLUEBERRY LAKE	Public Non-Motor	None
LAKE ALVA	No Motors Allowed	Wilderness	DEADMAN LAKE	Public Non-Motor	None
TOY LAKE	No Motors Allowed	Wilderness	EMERALD LAKE	Public Non-Motor	None
WOODSON LAKE	No Motors Allowed	Wilderness	FIREFLY LAKE	Public Non-Motor	None
3 small unnamed lakes			LITTLE BASS LAKE	Public Non-Motor	None
around E. Ellerson Lake	No Motors Allowed	Wild	LITTLE JOHN JR. LAKE	Public Non-Motor	None
3 small unnamed lakes			LITTLE ROCK LAKE	Public Non-Motor	None
west of Swanson Lake	No Motors Allowed	Wild	MAPLE LAKE	Public Non-Motor	None
BENEDICT LAKE	No Motors Allowed	Wild	PLUNKETT LAKE	Public Non-Motor	None
BITTERSWEET LAKE	No Motors Allowed	Wild	TRILBY LAKE	Public Non-Motor	None
BUG LAKE	No Motors Allowed	Wild	UNNAMED LAKE		
DEVINE LAKE	No Motors Allowed	Wild	(aka LONG LAKE) 39-7-34	Public Non-Motor	None
DRY LAKE	No Motors Allowed	Wild	WILDWOOD LAKE	Public Non-Motor	None
DU PAGE LAKE	No Motors Allowed	Wild	ALLEQUASH SPRINGS	Public Non-Motor	None
EAST ELLERSON LAKE	No Motors Allowed	Wild	BEAR SPRINGS	Public Non-Motor	None
FROG LAKE	No Motors Allowed	Wild	CRYSTAL LAKE	Public Non-Motor	None
HAWK LAKE	No Motors Allowed	Wild	NICHOLS LAKE	Public Non-Motor	None
HELEN LAKE	No Motors Allowed	Wild	STEVENSON SPRINGS	Public Non-Motor	None
INKPOT LAKE	No Motors Allowed	Wild			
ISLAND LAKE	No Motors Allowed	Wild	AURORA LAKE	Electric-Motor Only	None
JOHNSON LAKE	No Motors Allowed	Wild	CAMP LAKE	Electric-Motor Only	None
LITTLE CLOUD LAKE	No Motors Allowed	Wild	CUNARD LAKE	Electric-Motor Only	None
MAX LAKE	No Motors Allowed	Wild	DAY LAKE	Electric-Motor Only	None
MUD LAKE	No Motors Allowed	Wild	DOROTHY DUNN LAKE	Electric-Motor Only	None
NORWAY PINE LAKE	No Motors Allowed	Wild	ELOISE LAKE	Electric-Motor Only	None
OBERLIN LAKE	No Motors Allowed	Wild	FALLISON LAKE	Electric-Motor Only	None
PRONG LAKE	No Motors Allowed	Wild	FOX LAKE	Electric-Motor Only	None
SALSICH LAKE	No Motors Allowed	Wild	FRANK LAKE	Electric-Motor Only	None
SMITH LAKE	No Motors Allowed	Wild	GYPSY LAKE	Electric-Motor Only	None
SWANSON LAKE	No Motors Allowed	Wild	HEMLOCK LAKE	Electric-Motor Only	None
UNNAMED LAKE east of			JEAN LAKE	Electric-Motor Only	None
Bittersweet Lake	No Motors Allowed	Wild	LONE TREE LAKE	Electric-Motor Only	None
UNNAMED LAKE east of			MCNAUGHTON LAKE	Electric-Motor Only	None
Luman Lake (38-7-33)	No Motors Allowed	Wild	NIXON LAKE	Electric-Motor Only	None
UNNAMED LAKE north of			OTTO MIELKE LAKE	Electric-Motor Only	None
Big Lake	No Motors Allowed	Wild	PAUTO LAKE	Electric-Motor Only	None
UNNAMED LAKE south			SCAFFOLD LAKE	Electric-Motor Only	None
of Rainbow Flowage	No Motors Allowed	Wild	SHANNON LAKE	Electric-Motor Only	None
UNNAMED LAKE southeast			STARRETT LAKE	Electric-Motor Only	None
of White Sand Lake	No Motors Allowed	Wild	TURTLE LAKE	Electric-Motor Only	None
UNNAMED LAKE west of			UNNAMED LAKE		
Round Lake	No Motors Allowed	Wild	west of High Lake	Electric-Motor Only	None
			WHARTON LAKE	Electric-Motor Only	None
			ZOTTLE LAKE	Electric-Motor Only	None
			ALLEQUASH LAKE	½ Electric-Motor Only, ½ No Restriction	None

Road Management



ROAD MANAGEMENT

Access across and within the NH-AL is on a variety of roadways – Federal, State, County highways, and Town and DNR roads. The Department has identified over 60 miles of designated management and access roads. Some roads are maintained as permanent management roads, while other roads are only temporary for timber harvesting or other management activities. The present road inventory is not complete, a full inventory, mapping and classification of the permanent NH-AL road network is underway.

Unless closed by a gate, a berm, or a sign, department roads are open to public access with street licensed vehicles. Permanent roads may be closed to the public if they are deemed unsafe for public vehicles due to the condition of the road or because of potential conflicts with timber harvesting or other management activities occurring in the area. Temporary logging roads are generally open to the public during the period of management and for a short time thereafter to allow firewood gathering.

ROAD CLASSIFICATION AND GENERAL ROAD MANAGEMENT

There are several types of road classifications outlined in NR44.07(3). The classifications reflect a range of development and maintenance standards. The road classifications include primitive, lightly-developed, moderately developed, and fully developed. Each road will be assigned a development classification as part of the road inventory project described above.

Under the Draft Master Plan, roads will be managed as an “overlay area” to the Land Management Areas within the forest. Management of lands along the roads within the NH-AL will reflect the management specifications for the surrounding area classification. Also, all road right-of-ways (66 ft.) will continue to be controlled and maintained by their current operator (Federal, State, County, or Town).

The Department managed roadways with the NH-AL will be maintained in part according to the following requirements from the Best Management Practices for Water Quality:

- Regularly inspect active roads (especially after heavy rainfall). Clear debris from culverts, ditches, dips and other drainage structures to decrease clogging that can lead to washouts.
- Kept to a minimum during wet periods and spring breakup to reduce maintenance needs.

- Shape road surfaces periodically to maintain proper surface drainage, and remove berms on the edge of the road that trap water.
- When dust control agents are used, apply them in a way that will keep them from entering lakes, streams and groundwater.

AESTHETIC MANAGEMENT FOR ROADWAYS

Forest management techniques are adjusted along roadways on the forest to ensure the long-term maintenance of scenic conditions commensurate with the road’s level of public use. The Silviculture and Aesthetics Handbook distinguishes three separate road types within the NH-AL forest including Class A, Class B, and Class C roads (WDNR 1995).

Class A Roads – highest level of aesthetic management

Travel routes with heavy to medium use or roads where the use is for the specific purpose of enjoying scenery. All Federal, State, and County roads located (with the exception of County Highway “K”, a designated Rustic Road that is covered separately) are classified as “A” type roads.

Management objective

- Aesthetic management considerations predominate along Class A roads. These areas should be developed and maintained in the forest environment to the greatest scenic potential for public enjoyment. All management activities will follow guidelines according to the Silviculture and Forest Aesthetics Handbook (WDNR 1995).

Class B and C Roads – *These roads are characterized as having no one value that can be considered as the most important at all times. Because the aesthetic management needs are highly dependent on site specific conditions the NH-AL Superintendent will determine the classification (B or C) of roadways that do not fall into Class A.*

Class B Roads serve a variety of uses where the public traffic load is generally light to medium. Scenic attractiveness is of equal importance to other land management objectives.

Management objective

- Maintain scenic attractiveness in balance with other management objectives for adjacent lands.
- The appropriate scenic management treatments for each Class B roadway will be determined by the NH-AL Superintendent on a case-by-case basis as management activities are scheduled. All management activities will follow the appropriate guidelines according to the Silviculture and Forest Aesthetics Handbook (WDNR 1995) to meet the scenic objective.

Road Management

Class C Roads are primarily used for management access and public use does not occur or it is infrequent or it is primarily for activities such as hunting, fishing, or berry picking. Aesthetics are considered in the management along these roadways; however, they are secondary to the prescribed land management activities for the area.

Management objective

- The specific aesthetic management objective and the appropriate scenic management treatments for each Class C roadway will be determined by the NH-AL Superintendent on a case-by-case basis as management activities are scheduled. All management activities will follow the appropriate guidelines according to the Silviculture and Forest Aesthetics Handbook (WDNR 1995) to meet the scenic objective.

County and Township Roads

There are numerous state, county, and town roads within the state forest boundary. These roadways will continue to be managed by the municipalities outside the scope of the NH-AL Master Plan.

A boundary expansion does not give the Department any authority over private land in the area; it merely gives the Department the authority to seek to purchase land from willing sellers within the expanded boundary area. The revised state forest boundary does not in any way encumber, restrict, or place any other controls on private land within the boundary. When property owners want to sell their lands they may sell to whomever they choose- private parties, other conservation organizations or the State of Wisconsin.



Non-Metallic Mining

NON-METALLIC MINING

Mining Policy

The Department may use gravel, sand, fill dirt or other fill material from department-owned lands for Department use. On the NH-AL sand and gravel is used for road construction and maintenance. Under certain circumstances other government bodies or agencies may also have access to these materials. Section 23.20 of the Wisconsin Statutes states, “the department may permit any town, county, or state agency to obtain gravel, sand, fill dirt or other fill material needed for road purposes from any department-owned gravel pit or similar facility if this material is unavailable from private vendors within a reasonable distance of the worksite. The department shall charge a fee for this material commensurate with the fee charged by private vendors.

All nonmetallic mining in the NH-AL is regulated under the requirements of NR 135 Nonmetallic Mining Reclamation, Wis. Adm. Code, except for sites that do not exceed one acre in total for the life of the mining operation. Site reclamation under NR 135 is administered by the county. NR 135 requires mining sites to be cited appropriately, operated in a sound environmental manner, and that all disturbed areas be reclaimed according to a reclamation plan. Department of Transportation (DOT) projects are exempt because DOT projects have their own reclamation requirements. The use of state-owned land by the state and municipalities for gravel pits and sand will continue on a case-by-case basis. New sites will not be permitted where a Geological Feature of Importance has been identified. For a list of features, please see the Important Geological Features section below.

Gravel pits on the NH-AL

The list of non-metallic mining sites below includes those originally surveyed in 1985. There may be additional active sites that have not been surveyed as well as other unrecorded abandoned sites within the State Forest. Most have been converted or reclaimed.

Important Geologic Features

The NH-AL contains some good examples of drumlins, eskers, outwash plains and moraines, distinctive landforms left behind by the glaciers more than 10,000 years ago. (These glacial features are described in more detail in the glossary.) Because many of these glacial features contain high quality sand and gravel deposits they are slowly being lost over time to sand and gravel extraction and other disturbances.

The Department recognizes the importance of setting aside and preserving representative examples of these non-renewable geological features to serve as a base for geological and ecological educational programs and as a baseline against which to compare sites that become disturbed in various ways. The following are considered the more significant

examples of glacial features on the forest that will be protected from mining:

Geological Features of Importance

Winegar moraine – silt-rich soil, northern hardwoods coertype.

- Eskers near Morton Lake (in proposed northern boundary expansion area)
- Drumlins west of Trout Lake
- Muskellunge Moraine (high ridge) south of HWY N near Muskellunge Lake
- Vistas of moraines for public education/appreciation in Firefly Lake area
- Outwash heads near Lake Laura
- Outwash plains in the Boulder Junction area
- Vistas of “NH-AL topography” in Star Lake area

Real Estate Management



REAL ESTATE MANAGEMENT

PROPOSED FOREST BOUNDARY EXPANSION

State forest boundary expansions in several locations are proposed. The largest expansion area, approximately 61,000 acres including the less developed lands lying to the north to the Michigan/Wisconsin border. Two smaller expansion areas totaling 3,900 acres lie to the south of the forest along the Wisconsin River and near the Rainbow Flowage. The expansion areas and the revised boundary are illustrated on Map 16 in the appendix. The new NH-AL acquisition goal would be 291,200 acres. The Department will continue its long-standing policy of purchasing lands from willing sellers only.

The new expanded boundary is proposed to meet overall forest ecology, environmental health, and recreation needs of the NH-AL State Forest. Areas within the revised boundary will be considered for a range of protection options including purchase, cooperative agreements and conservation easements.

The revised northern boundary area represents one of the last places in Wisconsin where there is an opportunity to protect a reasonably large number of undeveloped or lightly developed lakes within a mosaic of high quality northern forest. The ecological values here are outstanding. The lakes support an unusually diverse and high quality assemblage of aquatic natural communities. The area's high quality forest habitat also has several patches of old growth. Numerous rare species are known to occur here, particularly birds and plants. Acquisition of land within this area would significantly expand the opportunity for larger scale management of hemlock-hardwood forest. This is a forest community type that's uncommon within the current forest boundary. Like the state forest lands to the south, this area is rich in high quality outdoor recreational opportunities. The proposed northern boundary expansion would have large-scale ecological benefits by linking large tracts of public land - the state forest, county forests, other state, and the national forests in Wisconsin and the Upper Michigan. There would be large-scale hydrological benefits as well. It would add additional watershed protection to the headwaters of the Wisconsin and Flambeau Rivers, a primary reason for the original establishment of the NH-AL State Forest.

One of the proposed southern boundary expansions is runs along the Wisconsin River in from the southern edge of the forest boundary to the head of the Rhinelander Flowage. The purpose of this boundary change is to assure permanent conservation of the immediate Wisconsin River shoreline, which has important wildlife and endangered species habitat,

and a variety of recreational opportunities. The third expansion area north of the Rainbow Flowage squares off the boundary to block-in lands recently purchased around the Flowage.

REAL ESTATE ACQUISITION POLICIES

All property purchases are on a willing seller basis. As required by state and federal laws, the Department pays "just compensation" for property, which is the estimated market value based on an appraisal by a certified licensed appraiser. At times, it is in the interest of the Department and the landowner for the Department to acquire only part of the rights to a property, an easement. The Department has a number of easement alternatives available to address these situations.

Landowners within the state forest boundary will be contacted periodically by Department staff to explain the Department's land acquisition program and to see if they have an interest in selling their property. Acquisition priorities within the state forest vary from year to year based on a variety of factors, such as resource management or recreation needs and available funding, but acquisition is always based on the landowner's willingness to sell or donate their property.

New land acquisitions will be classified under the land management classification system outlined in Wisconsin Administrative Code NR 44.05. State forest staff will base the classification of the acquisition on the ecological suitability and state forest management objectives.

AIDES IN LIEU OF TAXES

For all new properties purchased, the Department makes an annual payment in lieu of real estate taxes to replace property taxes that would have been paid if the property had remained in private ownership. The payment is made to the local taxing authority where the property is located. More detailed information on how the Department pays property taxes may be found in a publication titled, *Public Land Property Taxes*, PUB-LF-001.

ACQUISITION NEAR MUNICIPAL AREAS

The existing land acquisition moratorium areas around Sayner, St. Germain, Boulder Junction, Lake Tomahawk, and Manitowish Waters will continue to be honored.

FUTURE BOUNDARY ADJUSTMENT PROCESS

From time to time adjustments in the Forest boundary are needed. In some cases parcels of land are removed from the boundary to allow alternative, necessary public uses by local

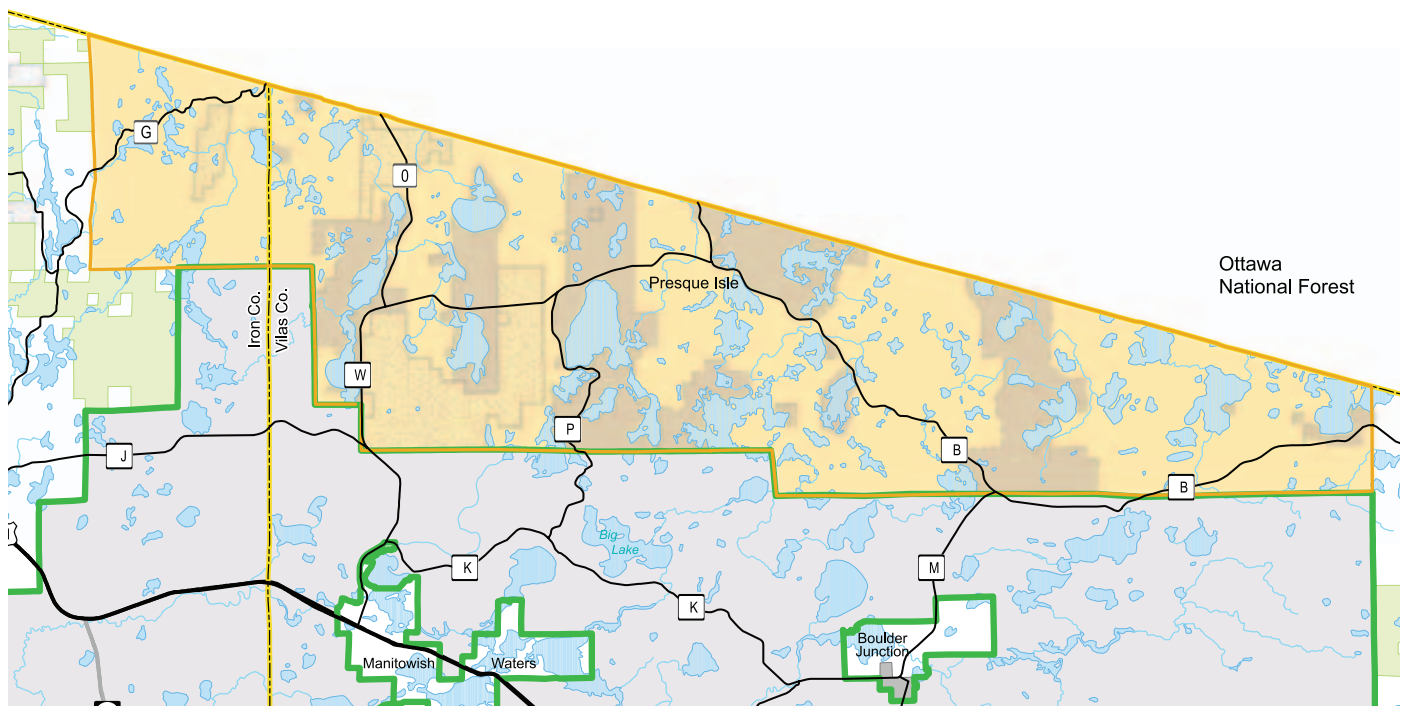
Real Estate Management

governments. In other cases it may be desirable to add small parcels adjacent to the Forest so they can be purchased for resource protection or to meet expanding recreational needs. Property boundary changes of 40 acres or more require approval by the Natural Resources Board. Ch. NR 44 provides a plan amendment process that may be used to make adjustments in the Forest boundary. Requests to amend the master plan for a property boundary change are forwarded to the Natural Resources Board. If the Board agrees to consider the proposal, the subsequent review process includes public notification and an opportunity to comment. The Board must approve all plan amendments. Because Federal funding has been used for land acquisition on the NH-AL, approvals from federal agencies may also be required prior to removing land from the approved boundary.

EASEMENTS, ACCESS PERMITS, AND LAND USE AGREEMENTS

Easements provide access across state property for utilities, town roads, or county highways. Easements are permanent and would continue to be upheld under the revised master plan. Access Permits provide access across state property to private ownership within the forest boundary. Land use agreements provide for a variety of uses on state forest property, such as snowmobile trails and other recreational facilities open to the public. Land use agreements and Access Permits would continue to be evaluated periodically. The Department may grant new land use agreements where they meet a significant public good and do not conflict with the plan's goals and objectives.

NH-AL Proposed Boundary Expansion



Administration and Operations Provisions



ADMINISTRATION AND OPERATIONS PROVISIONS

The following section describes general practices, laws, policies, facilities, and other factors that are applied to all lands of the Northern Highland – American Legion State Forest that are under state ownership.

FUNDING CONSTRAINTS

Implementation of the master plan is dependent upon staffing and funding, which are set outside of the master plan. Operational funding for state forests is established biannually by the state legislature. Development projects also follow an administrative funding and approval process outside of the master plan. Many of the initiatives proposed in the revised plan are dependent upon additional funding and staffing support. Therefore, a number of legislative and administrative processes outside of the master plan will determine the rate this revised master plan can be implemented.

STATE FOREST ROAD ACCESS POLICY

There are currently about 60 miles of inventoried public roadways on the forest and many of these roads are open to public vehicles. All state forest roads are open to public access with street licensed vehicles unless the road is bermed, gated, or signed closed. Roads are closed to ATVs. The Forest Superintendent may close a road if it becomes degraded, causing unsafe conditions for public vehicles.

State forests, including the NH-AL, regularly open and close forest roads primarily to conduct forest management. Roads open for management purposes are generally open to the public during the management period (one to two years) and a short time thereafter to allow access for firewood collection or other uses. Following this period they are closed with gates or berms. The same general miles are open to public vehicles across the NH-AL over time, but in different locations. This variable condition represents the historic use availability for public and tribal access. Road access for the disabled is provided of on a case-by- case basis by permit from the NH-AL Superintendent.

FACILITY MANAGEMENT

New or renovated recreational facilities will be designed according to state building codes and Department design standards and codes. The Forest Superintendent may also

close and relocate campsites, renovate facilities, and relocate trail segments as deemed necessary.

The Forest Superintendent may maintain and construct storage buildings or other similar facilities to support the management of the state forest, as is authorized by normal Department facility approval processes. The structure's location and design must be consistent with the land classification requirements (NR 44) and the management objectives for the Area it is sited.

DISABLED ACCESSIBILITY

All new construction and renovation of facilities will follow guidelines set forth within the Americans with Disabilities Act (ADA) and also be done in a manner consistent with NR 44 standards of the landuse classification of the site where the development is located. Across the NH-AL, the State Forest Superintendent has the authority to make reasonable accommodations for people with disabilities, consistent with the requirements of the area's landuse classification.

PUBLIC HEALTH AND SAFETY

All facilities will comply with federal, state, and local health and sanitation codes; such as well testing, campground licensing and wastewater treatment. The Forest Superintendent has the authority to close campsites or campgrounds, trails, and other facilities on the forest when necessary due to health, safety, or environmental damage concerns

Within designated public use areas (such as campgrounds, picnic areas, parking lots, and high use trail systems) trees or other natural elements that are deemed public hazards will be removed. Safety inspections are done at least twice per year.

EMERGENCY ACTION PLAN

The property maintains on file an emergency action plan that describes staff response and coordination with other agencies to natural disasters as they affect public safety and facilities. It is reviewed annually.

AUTHORIZED RESPONSE TO CATASTROPHIC EVENTS

Wildfires, timber diseases and insect infestations shall be controlled to the degree appropriate to protect the values of each management area. Necessary emergency actions may be taken to protect public health and safety. The appropriate management responses to catastrophic events are prescribed in each individual management area write-up.

Administration and Operations Provisions

FIRE SUPPRESSION

As stated in Wisconsin Statutes 26.11, "The Department is vested with power, authority and jurisdiction in all matters relating to the prevention, detection and suppression of forest fires outside the limits of incorporated villages and cities in the state except as provided in sub (2), and to do all things necessary in the exercise of such power, authority and jurisdiction." Forest fire suppression actions within the state forest will consider the property management goals and the threats of the fire to life and property. Appropriate techniques will be used in each event that provide effective fire suppression while minimizing resource damage.

REFUSE MANAGEMENT

Refuse is collected by a private contractor from designated sites at campgrounds and other primary use facilities. Recyclable items are collected by NH-AL staff. Visitors are required to carry out any refuse they bring in when there are no designated refuse or recycling receptacles present. This carry-in-carry-out policy applies to most primitive campsites, trails, and boatlandings. Burying of refuse is not allowed anywhere on the property.

MILITARY ACTIVITIES

Use of the property by the military will be restricted to those uses that are compatible with the objectives of the proposed master plan. Approved military activities would require a special use permit. Military activities that generally occur on state forests include: orienteering training, wilderness camping, cooperative training, and development projects that further the goals of the property, such as trail construction or fish habitat improvement.

COOPERATION WITH WISCONSIN VALLEY IMPROVEMENT COMPANY

The NH-AL acquired lands surrounding the Rainbow Flowage in 2004 from Wisconsin Valley Improvement Company (WVIC). The Rainbow Flowage is located in the American Legion part

of the NH-AL in Oneida County. Much of the land immediately surrounding the Rainbow Flowage is covered by restrictive covenants held by the WVIC.

The DNR and WVIC have individual roles and responsibilities to managing the Rainbow Flowage. However, each is dependent upon the other to successfully fulfill its management objectives. WVIC and the DNR will continue to consult regularly to maintain clear understanding of their management roles and objectives and cooperative approaches through lease or land use agreements. Through the NH-AL Master Plan, the DNR will implement a multi-use resource program and provide compatible recreation. Under the authority of the FERC license, WVIC will continue to implement the required and approved flowage operation and related environmental and recreational plans. The DNR may petition FERC if any major issues arise.

RESEARCH

The Northern Highland-American Legion State Forest is an ideal place to conduct experimental trials and research. For many years various universities and other institutions have used this forest for research, much of which has been conducted at the UW Kemp Research Station located within the NH-AL boundary. The research conducted by forest managers, scientists and partners from the University of Wisconsin has been beneficial for the forest as well as for the Department over all. There are always many new research projects being proposed and the forest will continue to review these requests to be conducted on state forest land.



Public Communication**PUBLIC COMMUNICATION PLAN**

The public and other governments will be provided opportunities to have an on-going involvement in the application of this master plan. This communication plan describes how the public will be periodically informed about activities and developing issues on the Forest, and it provides information on how the public will be notified of opportunities for involvement when significant, new issues related to management of the NH-AL arise.

Annually the Forest Superintendent will issue a report that summarizes the following:

- For the past year, the primary management and development activities (including timber sales) that were completed and other significant issues that were addressed.
- For the following year, outline any proposed management and development activities (including timber sales) and any changing management actions or approaches.

The annual report may also include other information of interest to the public on various topics related to management and use of the Forest. Some of the additional types of information that may be included from time to time are: the status of forest insect or disease problems, fire or storm damage, new information on endangered or threatened species, recreational management problems or new opportunities, and recreational use changes or trends.

The Forest Superintendent will maintain a list of persons, groups, and governments interested in receiving information about on-going management of the Forest. The annual report will be made available via mail or e-mail to persons on the list. The annual report will also be available to other potentially interested parties on the WDNR Internet Web site.

In the event the Department considers a change to the master plan (plan variance or amendment) all parties on the mailing list will be advised of the proposal and informed of the review and comment process. As appropriate, news releases will also be used to announce master plan amendment and variance proposals and review procedures.

Tribal Consultation

The NH-AL Superintendent will consult at least annually with the Lac du Flambeau Band on state forest management issues related to their treaty rights. Special consultation meetings with the Band will be scheduled as needed, should any issues warrant immediate attention.

Contact Person

The NH-AL Superintendent should be contacted regarding questions about the State Forest or the its master plan. At the time of this publication, the NH-AL superintendent may be contacted at:

WDNR Service Center

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